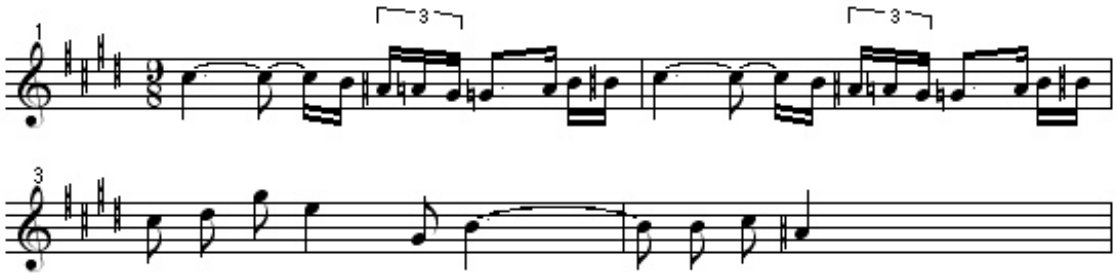
ADVANCED MUSIC THEORY
(WORKBOOK)
(Fifth Edition)

Written by

William S. Cratty, Ph.D.



To Accompany

Advanced Music Theory I & II Online Courses

William S. Cratty, Ph.D., David W. Megill, Ph.D., & Donald D. Megill, M.A.

ISBN 0-9645285-6-8

eMegill Publishing Company
4174 Bryan Street
Oceanside, CA 92056

ISBN: 0-9645285-6-8

TABLE OF CONTENTS

ADVANCED MUSIC THEORY
(WORKBOOK)

PART ONE:
INTRODUCTION

WORKBOOK

Chapter 1:
How to Get Started Online

1. Students registered in this online class must have:
   a. An E-mail account.
   b. A web browser.
   c. A CD-ROM drive, speakers, and soundcard.

Personal E-Mail Address

All students will be required to have a personal home e-mail address in order for initial contact with your professor. Later, after students have been successfully added online, students and instructor will communicate online.

URL Number (Hyperlink to online class)

The URL number can be accessed through the college instructor's **web page** or through the instructor. If you cannot locate successfully the web page with the URL number, the instructor will be happy to e-mail you the hyperlink to the class. Please **bookmark** the URL number in favorites or anything comparable for easy future access to the online course. (The URL number is very long and cumbersome; one mistake copying a number or letter will prevent your access to the online course!)

World Wide Web

Advanced Theory I online course will require students to have access to the **World Wide Web**. You will do all of your work in a **virtual classroom** environment called MOODLE.

WORKBOOK

Chapter 2:
Online Objectives/Strategies

In **Advanced Theory I** only, the primary topics that would be covered are:

Twelve-Tone Music
Impressionistic Music
Chromatic Music
Bach Four-Part Chorales
Harmonization of a Figured Bass
Harmonization of a Melody
Harmonization of a Melody and Bass
Secondary Dominants

In **Advanced Theory II** only, the primary topics that would be covered are:

1. Sonata-Allegro Form
2. Minuet and Trio
3. Theme and Variation
4. An Original Composition
5. Bach Four-Part Chorales
6. Harmonization of a Figured Bass
7. Harmonization of a Melody
8. Harmonization of a Melody and Bass
9. Secondary Dominants (Review)
10. The Full-Diminished Seventh Chord
11. The Neapolitan Sixth
12. The Augmented Sixth Chords (Italian, German, Swiss, and French)

Your music college instructor will determine the number and order in which he/she chooses to teach the above topics. The subjects above will have assigned quizzes and exams that will be theoretical as well as historical. Each test can be found online in the menu under **TESTS.**

In Advanced Theory I and II, a student will study a variety of genres in music (as indicated above) with which each area studied will be broken into four categories:

Research
Analysis
Exercise
Composition

Before students take any tests, please go online in the menu under **ASSIGNMENTS.** There students will be directed to do the research and readings drawing from your resources in the school library, which may or may not be on reserve. Some of the reading materials can also be online in the **CLASSROOM** and/or found in your **Advanced Theory: Workbook,** by Dr. William S. Cratty. In addition to your online readings, library materials, and workbook, your college music instructor may also require you to read from other theoretical textbooks. (For example, at MiraCosta College, the music department occasionally makes references to the theoretical textbook **"Harmony", Fifth Edition,** written by Walter Piston and revised by Mark DeVoto (published by W. W. Norton and Company, Inc., ISBN 0-393-95480-3).

Chapter 2: Online Objectives/Strategies
(continued)

The **Bach Riemenschneider** is another music book (four-part chorales) that students will need for Advanced Theory I and II (most students will have already acquired this text from Intermediate Theory I and II courses, first and second semester theory respectively). The collection of Bach's four-part Chorales and figured bass examples is invaluable. Although in Advanced Theory I and II many Bach Chorales are online, students will continue to use the Bach Riemenschneider as a reference or may use it for additional studies.

After you have researched a given subject, students will be asked to analyze an entire composition(s) or section(s) of a composition. Most of the musical materials to be analyzed can be accessed through the **CLASSROOM** where the student can read and listen to the music online.

After your analysis (or in some cases analyses) of a musical work(s), students will be required to create or answer a particular exercise(s) pertaining to the given subject online. The musical examples for your exercise(s) also can be found in the **ASSIGNMENTS** category online with the appropriate hyperlink (which will be in a bright blue color with it underlined).

The **EXERCISE** section is to prepare the student to think creatively and hopefully inspire as well as create a format to guide student's to the last category of the assignment, which is to create an **ORIGINAL MUSICAL COMPOSITION** in the specific genre discussed and researched.

Note: Although the **Advanced Theory I and II Courses Online** are designed to be completed without attending any class meetings on campus, students should verify with their music professor if he/she would establish any periodic class meetings on campus during the semester in addition to the online work.

WORKBOOK

Chapter 3:
How to Attach a Finale File

Note: For detailed information on "How to Attach a Finale File" please read online in Chapter 3 in the CLASSROOM.

WORKBOOK

Chapter 4:
The Purpose for Online Courses

Historical background

In the 1980's, two Music Professors named Donald Megill and Dave Megill questioned whether or not it was truly possible to create the first online music course that would successfully serve the musical needs of all students as well as music teachers. In the 1990's, the first two prototype courses, Music Appreciation and Music Fundamentals (written by Donald Megill and Dave Megill respectively) were completed and implemented at MiraCosta College where both tenured Music Professors are employed. Shortly after the music online courses' success at MiraCosta Community College, the courses were offered to Colleges throughout California. Today, the music online courses are served throughout the United States.

The purpose for online courses

The online courses are designed to accommodate all types of students as well as college institutions. A few selected reasons for the implementation of online teaching are to serve:

1. Disabled students.
2. Military personnel (especially those in the Navy on ships abroad).
3. Students working full-time whose work schedule during the morning, afternoon, or evening is a conflict with traditional "face-to-face" (live) courses.
4. Students who CANNOT find the equivalent course in their area (county or state); therefore, they enroll in an online course as a DISTANT LEARNING student.
5. Students who have no transportation or cannot afford parking.
6. Students who have to care for their own children.
7. To create for the college more available classroom space for the traditional "face-to-face" courses and more parking spaces.

The requirements for an online student

A student who is interested in taking any online courses must have:

His/her own computer or have access to a computer and speakers, with a web browser (Internet connection). [Please read either Chapter One "How to Get Started" or online in the Classroom for more specific details on the minimum requirements with regards to the necessary hardware as well as power and speed].

A student who is successful in completing an online course must demonstrate that he/she is:

1. Computer literate.
2. Self-motivated.
3. Self-disciplined.
4. Willing to articulate in writing to the instructor and on occasions to other students (e.g. Student Lounge for Class Discussion).

WORKBOOK

Chapter 5:
Contents for Advanced Theory I Online
(Third Semester)

CONTENTS ONLINE

CLASSROOM

Welcome—Introduction on How to Get Started
How to Attach a Finale File
Syllabus
Anton Webern, Variations for Piano, Op. 27, Second Movement
Impressionism—Claude Debussy
Bach Chorales (list)
Bach Chorale No. 1, "Aus meines Herzens Grunde"
Bach Chorale No. 5, "An Wasserflussen Babylon"
Bach Chorale No. 20, "Ein' feste Burg"
Bach Chorale No. 48, "Ach wie fluchtig, ach wie nichtig"
Bach Chorale No. 78, "Herzliebster Jesu"
Bach Chorale No. 105, "Herzliebster Jesu"
Bach Chorale No. 369, "Jesu, der du meine Seele"

ASSIGNMENTS

Music Theorist Report Guide
Twelve-Tone Composition—Research
Twelve-Tone Composition—First Analysis
Twelve-Tone Composition—Second Analysis (Extra Credit)
Twelve-Tone Composition—Two Exercises: Creating A 12-Tone Series and Counterpoint Phrase
Twelve-Tone Composition—Graded 12-Tone Row/Series
Twelve-Tone Composition—Graded Two-Part, 12-Tone Counterpoint Phrase
Twelve-Tone Composition—Original Work (Using the 12-Tone Technique)
Impressionism—Research
Impressionism—Analysis
Impressionism—Four Short Exercises
Impressionism—Graded Whole-Tone Scale
Impressionism—Graded Pentatonic Scale
Impressionism—Graded Synthetic Scale
Impressionism—Graded Impressionistic Musical Phrase or Theme
Impressionism—Original Composition in an Impressionistic Style
Chromaticism—Research
Chromaticism—Analysis
Chromaticism—Exercise
Chromaticism—Graded Chromatic Scale
Chromaticism—Graded Chromatic Melody
Chromaticism—Original Chromatic Composition
Back to Bach—Research

Chapter 5: Contents for Advanced Theory I Online (continued)
(Third Semester)

ASSIGNMENTS (continued)

Analysis #1: Bach Chorale No. 1, "Aus meines Herzens Grunde"
Analysis #2: Bach Chorale No. 5, "An Wasserflussen Babylon"
Analysis #3: Bach Chorale No. 20, "Ein' feste Burg"
Analysis #4: Bach Chorale No. 48, "Ach wie fluchtig, ach wie nichtig"
Analysis #5: Bach Chorale No. 78, "Herzliebster Jesu"
Analysis #6: Bach Chorale No. 105, "Herzliebster Jesu was hast du verbrochen"
Analysis #7: Bach Chorale No. . 350, "Werde munter, mein Gemute"
Analysis #8: Bach Chorale No. 369, "Jesu, der du meine Seele"
Harmonization of Melody
Harmonization of Melody—Graded Harmonized Melody
Harmonizations: A. Harmonization of Bass and Soprano (Complete Inner Parts).
B. Harmonization of Figured Bass
Harmonization—Graded Harmonization of Bass and Soprano (Inner Parts)
Harmonization—Graded Harmonization of Figured Bass
Concert Report Guide

Extra credit: An additional four-part chorale for analysis (Not available online, check library reserve or Bach Riemenschneider)

Four-Part Chorale "Erhalt uns, Herr, bei deinem Wort" (Anonymous; German Chorale, 1543)

TESTS

Subjects for Test #1:
Schoenberg
Atonality
Expressionism
Twelve-Tone Technique

Subjects for Test #2:
Debussy
Impressionism

Subjects for Test #3:
Voice Leading
Harmonic Progressions

Subjects for Test #4:
Dominant Seventh Chords—Root Position
Dominant Seventh Chords—First Inversion
Dominant Seventh Chords—Second Inversion
Dominant Seventh Chords—Third Inversion

Subjects for Test #5:
Secondary Dominant Seventh Chords
Inverted Secondary Dominant Seventh Chords

WORKBOOK

Chapter 6:
Contents for Advanced Theory II Online
(Fourth Semester)

CONTENTS ONLINE

CLASSROOM

Welcome—Introduction on How to Get Started
Syllabus
How to Attach a Finale File
Bach Chorale No. 26, "O Ewigkeit, du Donnerwort".
Bach Chorale No. 27, "Es spricht der Unweisen Mund".
Bach Chorale No. 28, "Nun komm, der Heiden Heiland".
Bach Chorale No. 31, "Ach lieben Christen, seid getrost".
Bach Chorale No. 40, "Ach Gott und Herr"
Bach Chorale No. 41, "Was mein Gott will, das"
Bach Chorale No. 42, "Du Friedensfurt, Herr Jesu Christ"
Bach Chorale No. 53, "Das Neugeborne Kindelein"
Bach Chorale No. 54, "Lobt Gott, ihr Christen, allzugleich"
Sonatina in C Major, Op. 36, No. 1. Muzio Clementi
Sonatina in F Major, Op. 36, No. 4. Muzio Clementi
Minuet in C Minor. Johann Sebastian Bach
Minuetto Giocoso. Joseph Haydn
Minuet in G Major, from "A Little Night Music". Wolgang Amadeus Mozart
Minuet in G Major, No. 1. Wolgang Amadeus Mozart
Minuet in G Major. Ludwig van Beethoven

ASSIGNMENTS

Letter to College Requesting for Acceptance
Augmented Sixth Chord—Research (Reading and Writing Assignment)
Augmented Sixth Chord—Analysis
Augmented Sixth Chord—Exercise
Augmented Sixth Chord—Four-Part Chorale Composition
Sonata-Allegro Form—Research
Sonata-Allegro Form—Analyses of Two Sonatinas by Muzio Clementi
Sonata-Allegro Form—Exercise
Sonata-Allegro Form—An Original Composition
Minuet and Trio—Research
Minuet and Trio—Analyses of Two Minuets and Trios by Wolgang Amadeus Mozart and Ludwig van Beethoven
Minuet and Trio—Exercise
Minuet and Trio—An Original Composition

Chapter 6: Contents for Advanced Theory II Online (continued)
(Fourth Semester)

ASSIGNMENTS (continued)

Analysis #1: Bach Chorale No. 26, "O Ewigkeit, du Donnerwort".
Analysis #2: Bach Chorale No. 27, "Es spricht der Unweisen Mund".
Analysis #3: Bach Chorale No. 28, "Nun komm, der Heiden Heiland".
Analysis #4: Bach Chorale No. 31, "Ach lieben Christen, seid getrost".
Analysis #5: Bach Chorale No. 40, "Ach Gott und Herr"
Analysis #6: Bach Chorale No. 41, "Was mein Gott will, das"
Analysis #7: Bach Chorale No. 42, "Du Friedensfurt, Herr Jesu Christ"
Analysis #8: Bach Chorale No. 53, "Das Neugeborne Kindelein"
Analysis #9: Bach Chorale No. 54, "Lobt Gott, ihr Christen, allzugleich"
Harmonization of Bass Line in C Major (Root- and First-Inversion Triads)
Harmonization of Bass Line in G Minor (Root- and First-Inversion Triads)
Harmonization of Bass Line in D Major (Root- and First-Inversion Triads)
Two Figured Bass Harmonizations:
- Harmonization of Figured Bass with Root- and First-Inversion Triads
- Harmonization of Figured Bass with Augmented Sixth Chord, First- and Second-Inversion Triads

Above Figured Bass Harmonization #1—Graded
Above Figured Bass Harmonization #2—Graded
Harmonization of Melody with Unaccented Passing Tones
Harmonization of Melody with Upper and Lower Neighboring Tones
Two Disparate Harmonizations of the Same Melody in G Minor
A. Root- and First-Inversion Chords Without Nonharmonic Tones
B. Different Harmonies (from first example), Using Nonharmonic Tones

An Original Composition—Written Description of Composition
An Original Composition—Exercise #1
An Original Composition—Exercise #2
An Original Composition—A Student Original Creative Project
Figured Bass Harmonization in Three Phrases with Tonicizations
- First Phrase
- Second Phrase
- Third Phrase

Above Figured Bass Harmonization of Phrase #1—Graded
Above Figured Bass Harmonization of Phrase #2—Graded
Above Figured Bass Harmonization of Phrase #3—Graded
Concert Report Guide

Extra credit: An additional four-part chorale for analysis (Not available online, check library reserve or Bach Riemenschneider)

Four-Part Chorale "Erhalt uns, Herr, bei deinem Wort" (Anonymous; German Chorale, 1543)

Chapter 6: Contents for Advanced Theory II Online (continued)
(Fourth Semester)

TESTS

Subjects for Test #1:
1. Voice Leading
2. Harmonic Progressions

Subjects for Test #2:
Italian Augmented Sixth Chord

Subjects for Test #3:
German Augmented Sixth Chord

Subjects for Test #4:
1. French Augmented Sixth Chord

Subjects for Test #5:
Swiss Augmented Sixth Chord (the double augmented sixth chord)

Subjects for Test #4:
1. Neapolitan Sixth Chord

Subjects for Test #5:
Secondary Dominant Seventh Chords
Inverted Secondary Dominant Seventh Chords

Subjects for Test #6:

1. Full-Diminished Seventh Chords
2. Secondary Full-Diminished Seventh Chords

PART TWO:
CHROMATIC HARMONY

WORKBOOK

Chapter 7:
Secondary Dominant Seventh Chords: An Overview

Overview of secondary dominant seventh chords

Before learning secondary dominants, students must learn unequivocally that each diatonic major and minor (harmonic and ascending melodic minor) key has only one primary dominant. All major and minor keys include major and minor triads and various seventh chords, but the dominant seventh chord is especially suigeneris because there is only one such harmony per key (along with the full- and half-diminished seventh chords). Due to the intervallic structure of all dominant seventh chords, which include a tritone (diminished fifth) between its third and seventh, this intervallic union generates tension and dissonance that must resolve to its original home key. Resolving the tritone will release the tension created by this interval. The tritone that is unique to the dominant seventh chord is also the root and fifth of the leading-tone triad or its respective full- and half-diminished seventh chords of the major as well as the harmonic and ascending melodic minor scales. The tritone, for example, in a G dominant seventh chord in C major consists of B natural and F natural (the major third and minor seventh of the chord, respectively). The resolution of the tritone or diminished fifth of the G dominant seventh chord converges chromatically to a major third, respectively to the root C natural and the third E natural of the tonic triad. In a minor key, it would converge to a minor third, C natural and E flat. If the tritone is inverted with F natural in the lowest voice and B natural in the upper voice, the interval becomes an augmented fourth. In a major key, its resolution diverges to a minor sixth, and in minor, to a major sixth. For example, the F natural in the lowest voice descends to the third, while the B natural in the upper voice ascends to the root of the tonic chord.

After learning each dominant seventh chord for each key in the circle of fifths (review previous chapter), a student may then proceed to learn how musical compositions, regardless of length, may include dominant seventh chords that are borrowed from other keys as a means for tonicization, modulation, or harmonic timbre. Although it is not uncommon to find chromatic alterations in a diatonic scale that does not emphasize a secondary dominant seventh chord, an appropriate accidental, such as an added sharp, flat, or natural, can create a secondary dominant seventh chord. Do not confuse, however, chromatic alterations, such as the raised sixth and seventh degrees of the ascending melodic minor scale as part of a secondary dominant seventh chord. Although chromatic nonharmonic tones, such as passing tones or lower neighbors, may or may not take part as a secondary dominant seventh, it will all depend on the choice of the borrowed tone. Chromatic alterations have many purposes. However, when the appropriate chromatic alteration does take place, any triad in the diatonic scale can be transformed into a “major” triad with a “minor seventh”. When a diatonic chord is transformed to its new identity as a secondary dominant seventh chord, it also in fact creates a secondary tonic, which can be momentary or permanent.

Chapter 7: Secondary Dominant Seventh Chords: An Overview (continued)

When composers have established a home key, they may modulate or tonicize to another key that is relatively close or far away from its original home key by using a secondary dominant. For example, if the home key is C major, and the composer chooses to modulate to F major (the subdominant of C), a composer simply adds a pivot chord (if the key is not remote) and a new V7 chord that belongs to F major. The pivot chord (a chord that belongs to both the original and new key) will then proceed to a C dominant seventh chord (C7) of the key of F. The C7 is no longer a tonic chord, but now becomes the property of F; therefore, the C7 is the dominant seventh of F. If this occurrence of borrowing a dominant seventh chord from another key is only brief, which is known as tonicization, the C7 chord is analyzed as V7 / IV. However, if the composer chooses to modulate (modulation is abandoning the original key for a long period of time or permanently), from the key of C major, the C7 will become the new dominant seventh of the new key. Therefore, the analysis would then indicate a new key marking; e.g., F Major: V7 (C7) progressing to I (F).

WORKBOOK

Chapter 8:
Secondary Dominant Seventh Chords: Selected Listening and Reading Materials

Selected compositions including secondary dominant seventh chords

Michael Praetorius (1571-1621)

Es ist ein' Ros' entsprungen, (**V/ii:** In last phrase, no measures indicated. Protestant Hymn for Four Voices, arranged by Praetorious, 1609).

Matthaus Greitter (?)

O Mensch bewein' dein Sunde gross, (Four-Part Chorale, **V/iii:** Measure 2, 1525).

Henry Purcell (1659-1695)

Dido's Lament from the Opera Dido and Aeneas, (**V7/iv:** Measure 2, 1689).

Johann Sebastian Bach (1685-1750)

Dazu ist ershienen der Sohn Gottes, No. 8 from Cantata No. 40, taken from the melody freuet euch, ihr Christen alle by Andreas Hammerschmidt, 1646, (**V7/iv:** Measure 1, 1723).

Prelude No. 1 in C Major, BWV 846^{10} from the Well-Tempered Clavier, Book One, (**V7/IV:** Measures 20 and 32, 1722).

Ich elender Mensch (I, wretched man) from Cantata No. 48, (**V7/V:** Measure 1, 1723).

Wir Christenleut from the Christmas Oratorio, (**V7/VII:** Measure 8, 1734).

Valet will ich dir geben from the St. John Passion, (**V/vi:** Measure 1).

Musette in D Major from the Little Notebook for Anna Magdelena Bach, (**V7/V:** Measure 18, 1725).

George Frideric Handel (1685-1759)

Air and Variations, "The Harmonious Blacksmith" from Suite No. 5, (**V7/V:** Measure 2 from the "Air", 1720).

Chapter 8: Secondary Dominant Seventh Chords: Selected Listening and Reading Materials (continued)

Daniel Gottlob Turk (1756-1813)

Canzone in A Minor, (Piano Piece. **V7/VII:** Measure 6. **V/III:** Measure 7).

Wolfgang Amadeus Mozart (1756-1791)

1. Piano Sonata in B Flat Major, K. 333, Second Movement, (**V7/IV:** Measure 68, 1783).
2. Minuet in C Major, K. 6, (**V/V:** Measure 7, approximately early 1760s).
3. Allegro in Bb Major, K. 3, (**V7/ii:** Measures 13 and 14. **V/ii:** Measure 15, approximately early 1760s).
4. Piano Concerto No. 23 in A Major, K. 488, Third Movement, (**V7/V:** Measure 128).
5. Piano Sonata in A Major, K. 331, Third Movement "Turkish March", (**V/V:** Measure 7. **V7/vi:** Measure 36. **V7/iii:** Measure 39).
6. Piano Sonata in C Major, K. 545, First Movement, (**V7/V:** Measures 10 and 25).
7. Piano Sonata in F Major, K. 332, First Movement, (**V/V:** Measures 37—40).

August Eberhard Muller (1767-1817)

The Cuckoo Waltz, (Piano Piece in C Major. **V7/V:** Measure 19).

Ludwig van Beethoven (1770-1827)

1. Piano Sonata No. 5 in C Minor, Op. 10, No. 1, Second Movement, (**V7/ii:** Measure 17, 1796-1798).
2. Piano Sonata No. 21 in C Major, the "Waldstein" Sonata, Op. 53, First Movement, (**V7/V:** Measures 225 and 226, 1803-1804).
3. Piano Sonata No. 9 in E Major, Op. 14, No. 1, Second Movement (E minor), (**V/VI:** Measure 18, 1798-1799).
4. Minuet and Trio in E Flat Major, (**V7/V:** Measures 10 and 15).

Chapter 8: Secondary Dominant Seventh Chords: Selected Listening and Reading Materials (continued)

Johann Georg Graeff (Late 18th Century Composer)

Nocturne in B Minor, (Piano Piece. **V7/III:** Measure 6. **V7/iv:** Measure 14, approximately 1780).

Antonio Diabelli (1781-1858)

1. Bagatelle in C Major, (Piano Piece. **V/ii:** Measures 13 and 14).

Maria Szymanowska (1790-1831)

Mazurka in C Major, (Piano Piece. **V7/V:** Measures 13 and 15).

Franz Schubert (1797-1828)

Erlkonig, D 328, (A Lied for Voice and Piano. **V7/ii of the relative major:** Measure 70. **V7/V:** Measure 91, 1815).

Nahe des Geliebten, D. 162, (Lied for Voice and Piano. **V7/vi:** Measure 7, 1815).

Waltz in B Minor, (**V7/III:** Measure 14).

Scherzo in B Flat Major, (Piano Piece. **V7/IV:** Measures 9—11. **V7/V:** Measure 15).

Felix Mendelssohn (1809-1847)

1. Praeludium in E Minor, (Piano Piece. **V/III:** Measure 13).

Robert Schumann (1810-1856)

Kleine Studie (Little Etude) from Album for the Young, Op. 68, (**V7/IV:** Measure 40, 1848).

Er, der Herrlichste von allen, No. 2 from Frauenliebe und –leben, Op. 42, (**V7/V:** Measure 3, 1840).

Little Piece from Album for the Young, (Piano Piece in C Major. **V/V:** Measure 3).

Chapter 8: Secondary Dominant Seventh Chords: Selected Listening and Reading Materials (continued)

Frederic Chopin (1810-1849)

Prelude in C Major, Op. 28, No. 1, (**V7/V:** Measure 6, 1836-1839).

Prelude in B Minor, Op. 28, No. 6, (**V7/N6:** Measure 11, 1836-1839).

Prelude in E Minor, Op. 28, No. 4, (**V7/iv:** Measure 14. **V7/III:** Measure 7, 1836-1839).

Waltz in A Minor, Posthumous, (**V7:III:** Measure 7. **V7/V:** Measure 31, published 1955).

Cantabile in B Flat Major, Posthumous, (**V7/IV:** Measure 1, approximately 1834).

Prelude in A Major, Op. 28, No. 7, (**V7/ii:** Measure 12, 1836-1839).

Largo in E Flat Major, Posthumous, (**V7/vi:** Measure 1).

Albumleaf in E Flat Major, Posthumous, (**V7/IV:** Measure 12, 1840).

Franz Liszt (1811-1886)

Album Leaf, (Piano Piece in F Major. **V7/ii:** Measure 9, last chord in bar).

Richard Wagner (1813-1883)

Bridal Chorus from the Opera Lohengrin, (**V7/iii:** Measure 7. **V7/ii:** Measure 9).

Louis Koehler (1820-1886)

Carefree Stroll, (Piano Piece in C Major. **V7/V:** Measure 7).

Johannes Brahms (1833-1897)

1. Intermezzo in A Minor, Op. 76, No. 7, (**V/iii:** Measures 1 and 5, published 1879).

Peter Tchaikovsky (1840-1893)

Piano Concerto No. 1 in B Flat Minor, Op.23, (**V7/V:** Measure 5).

Edvard Grieg (1843-1907)

1. Lyric Pieces for the Piano, "Secret", Op. 57, No. 4, (**V7/V:** Measure 3).

Recommended reading materials of secondary dominants (bibliography)

Piston, Walter and DeVoto, Mark. Harmony, Fifth Edition.

Part One: Tonal Harmony in Common Practice

Chapter 16: Secondary Dominants, pp. 257 – 272.

Shir-Cliff, Justine. Chromatic Harmony.

Chapter 2: The Chromatic Dominant Seventh Chord, pp. 24 – 30.

Chapter 3: Inversions of the Chromatic Dominant Seventh Chord, pp. 31 – 36.

Chapter 4: Consecutive Chromatic Dominants, pp. 37 – 41.

Chapter 5: The Chromatic Dominant Seventh Chord: Evaded Resolution, pp. 42 – 44.

Ottman, Robert W. Elementary Harmony, Second Edition.

Chapter 20: Elementary Modulation of Secondary Dominant Seventh Chords: The Dominant of the Dominant, pp. 309 – 329.

WORKBOOK

Chapter 9:
Secondary Dominant Seventh Chords: Exercises Creating Secondary V7's

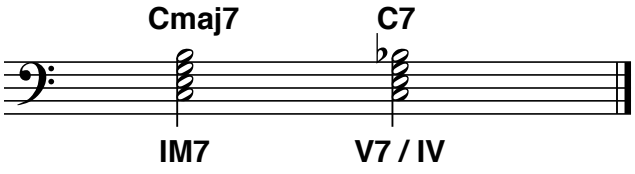
Exercises creating secondary V7's

Note: As an example of secondary dominant seventh chords found in C major, the examples listed below illustrate how each seventh chord from the key of C major can be chromatically altered by one or two tones to become a secondary dominant seventh chord of another key.

Example 1:

As explained on the previous page, the major seventh of the C major seventh chord only needs to be chromatically lowered (or flatted) to be transformed as a C dominant seventh chord of F major. As a tonicization in C major, the chromatically altered seventh chord, C7, would be analyzed as V7 / IV.

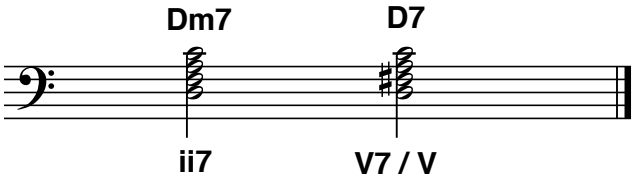
C major:



Example 2:

In C major, the minor third of the D minor seventh chord (ii7, the supertonic degree) can be chromatically raised a half step to create a D dominant seventh chord of G. As a tonicization in C major, the chromatically altered seventh chord, D7, would be analyzed as V7 / V.

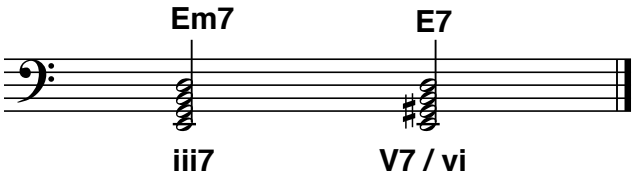
C major:



Example 3:

As in the above example, the minor third of the E minor seventh chord (iii7, the mediant degree) can be chromatically raised a half step to create an E dominant seventh chord of A. As a tonicization in C major, the chromatically altered seventh chord, E7, would be analyzed as V7 / vi.

C major:

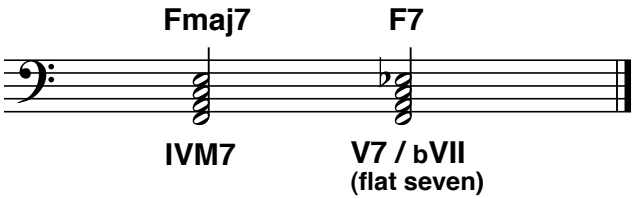


Example 4:

As in the first example in C major, the major seventh of the F major seventh chord (IVM7, the subdominant degree) can be chromatically lowered a half step to create an F dominant seventh chord of B flat. As a tonicization in C major, the chromatically altered seventh chord, F7, would be analyzed as V7 / bVII.

In the key of C major, the F dominant seventh chord is V7 of B flat major, which is the lowered or flat seventh degree. The new secondary tonic, B flat major, is also the subtonic chord of the C natural minor scale or descending melodic minor scale, which is the parallel minor to C major.

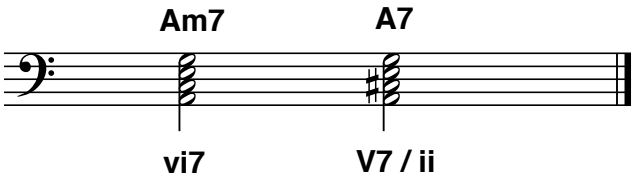
C major:



Example 5:

As in examples one and two, in C major, the minor third of the A minor seventh chord (vi7, the submediant degree) can be chromatically raised a half step to create an A dominant seventh chord of D. As a tonicization in C major, the chromatically altered seventh chord, A7, would be analyzed as V7 / ii.

C major:



Chapter 9: Exercises Creating Secondary Dominant Seventh Chords (continued)

Example 6:

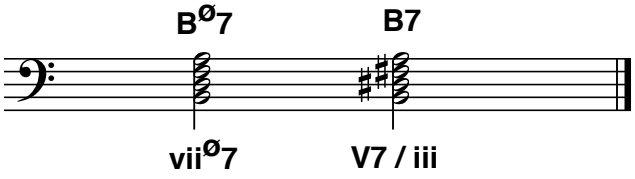
Unlike any of the previous examples, in any major scale or key, the chord built on the seventh degree is as unique as the dominant seventh chord. It is because both seventh chords (the dominant seventh and diminished seventh chords) built on the fifth and seventh degrees of the scale respectively are unique because there are no others like them within the diatonic scale. The seventh degree of any major scale is a diminished triad, unlike the others that are major or minor. When a minor seventh is added to the diminished triad, it becomes a half-diminished seventh chord (one of its kind, just as the dominant seventh chord!).

The chord symbol used for the half-diminished seventh chord is a lower case Roman numeral, the same as the minor triad, due to its minor third that they both share between their root and third. However, the lower case Roman numeral vii includes a small circle (also known as a degree sign) with a diagonal slash through it juxtaposed in the upper right hand corner, with the Arabic numeral 7 either next to it or below it, for example: vii^{Ø}7.

In C major, the half-diminished seventh chord is called a B half-diminished seventh. To transform a half-diminished seventh chord to a dominant seventh chord, unlike the previous seventh chords that required only one chromatic alteration, the B half-diminished seventh chord will require two chromatically raised tones. To become a dominant seventh, both the third and fifth of the B half-diminished seventh chord would have to be chromatically raised from D natural and F natural to D sharp and F sharp respectively.

By chromatically raising the third and fifth of the B half-diminished seventh chord, it is transformed into a B dominant seventh chord. As a tonicization in C major, the chromatically altered seventh chord, B7, would be analyzed as V7 / iii.

C major:



Note: Remember, the above examples are only secondary dominant seventh chords derived by chromatically altering one or two tones from the seventh chords found in the diatonic C major mode. A composer has the prerogative to borrow secondary dominant seventh chords that have roots derived from other tones not found in C major, such as any of the sharp or flat notes. For example, in C major, we can borrow a secondary dominant seventh chord with its root based on B flat. The root of the B flat dominant seventh chord does not belong to the diatonic scale of C major. However, the root B flat does serve as an integral part of the new secondary dominant seventh chord that will serve a more distant secondary tonic from C major. The B flat dominant seventh chord functions as a V7 of E flat major. The new secondary tonic, E flat major, can be analyzed as the altered flat mediant degree of C major or as the relative major (III) of C minor, which is the parallel minor to C major.

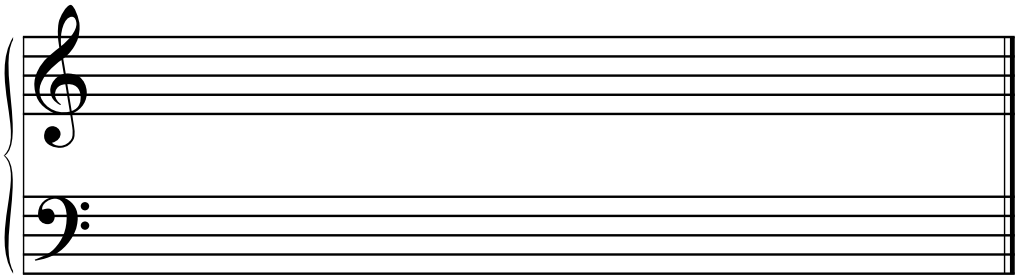
In tonal music, based on the diatonic major or minor scales, any tone can be chromatically altered to create a secondary dominant seventh chord to highlight a new prospective secondary tonic which may be a momentary or permanent guest in the original home key.

WORKBOOK

Chapter 10:
Secondary Dominant Seventh Chords: Exercises Resolving Secondary V7's

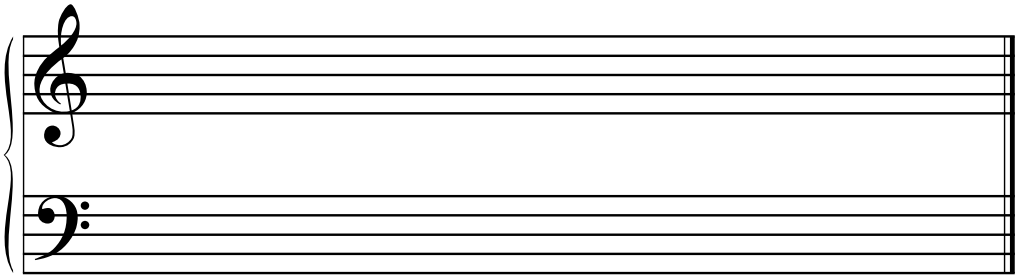
Exercises resolving secondary V7's

Below in the grand staff, please create in the key of G major, a V7 / V harmonized in a four-part chorale setting with its appropriate resolution to its V.



G MAJOR: **V7 / V** **resolving to:** **V**

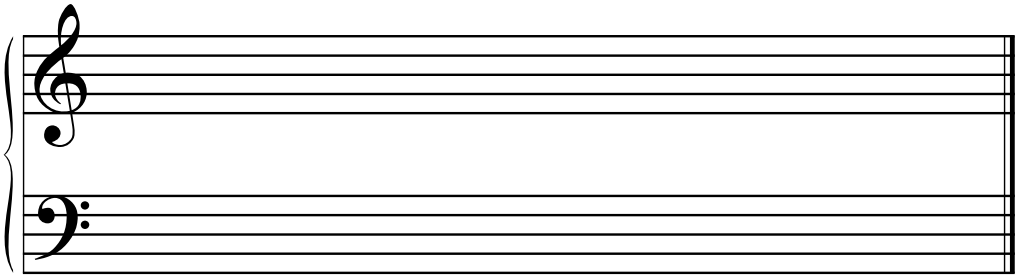
Below in the grand staff, please create in the key of F major, a V7 / IV harmonized in a four-part chorale setting with its appropriate resolution to its IV.



F MAJOR: **V7 / IV** **resolving to:** **IV**

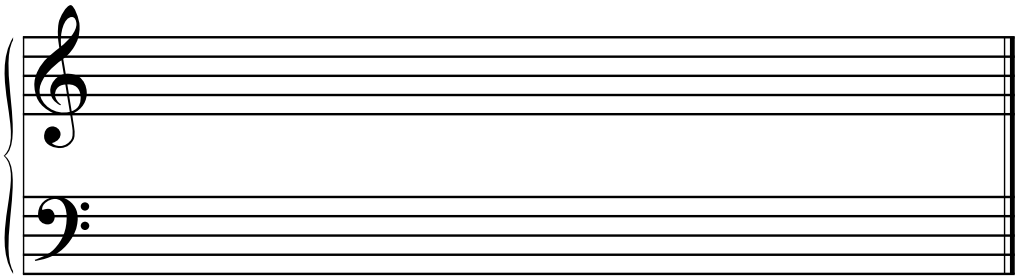
Chapter 10: Exercises Resolving
Secondary Dominant Seventh Chords
(continued)

Below in the grand staff, please create in the key of D major, a V7 / vi harmonized in a four-part chorale setting with its appropriate resolution to its vi.



D MAJOR: **V7 / vi** **resolving to:** **vi**

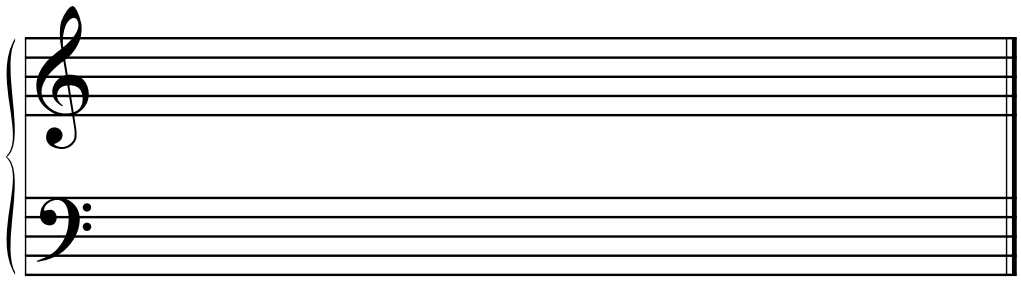
Below in the grand staff, please create in the key of A harmonic minor, a V7 / V harmonized in a four-part chorale setting with its appropriate resolution to its V.



A HARMONIC MINOR: **V7 / V** **resolving to:** **V**

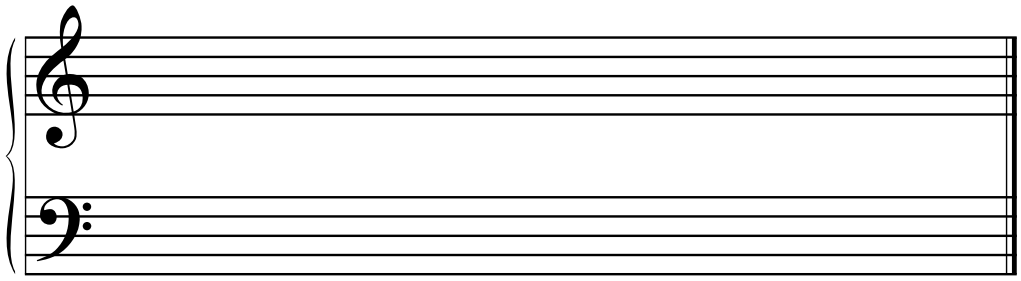
Chapter 10: Exercises Resolving
Secondary Dominant Seventh Chords
(continued)

Below in the grand staff, please create in the key of E major, a V7 / vi harmonized in a four-part chorale setting with its appropriate resolution to its vi.



E MAJOR: **V7 / vi** **resolving to:** **vi**

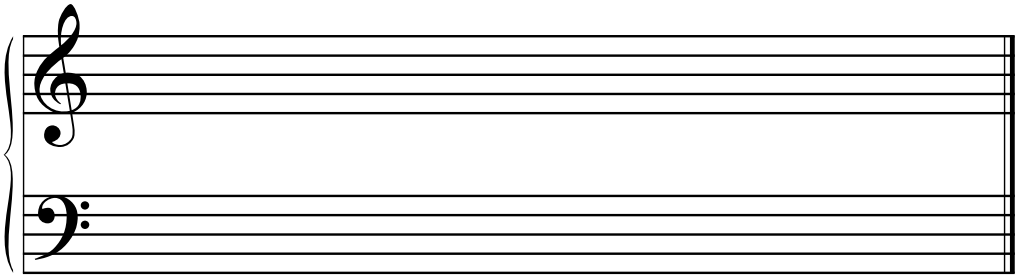
Below in the grand staff, please create in the key of F sharp harmonic minor, a V7 / V harmonized in a four-part chorale setting with its appropriate resolution to its V.



F# HARMONIC MINOR: **V7 / V** **resolving to:** **V**

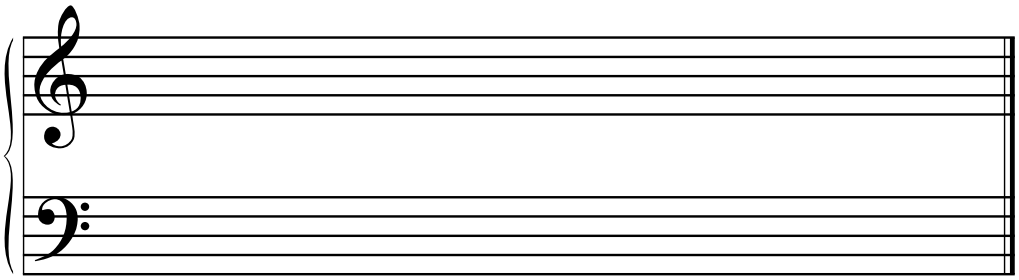
Chapter 10: Exercises Resolving
Secondary Dominant Seventh Chords
(continued)

Below in the grand staff, please create in the key of A flat major, a V7 / vi harmonized in a four-part chorale setting with its appropriate resolution to its vi.



Ab MAJOR: **V7 / vi** **resolving to:** **vi**

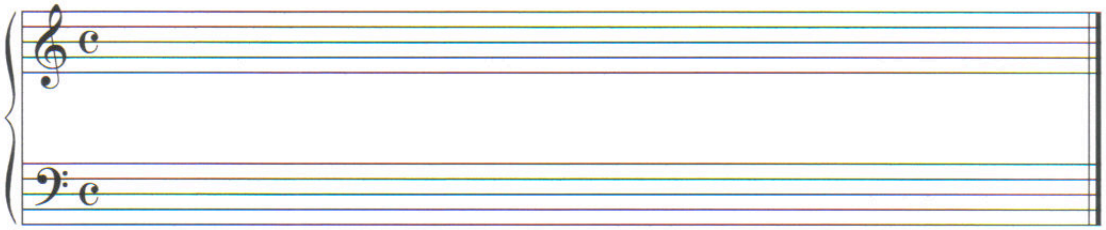
Below in the grand staff, please create in the key of D harmonic minor, a V7 / V harmonized in a four-part chorale setting with its appropriate resolution to its V.



D HARMONIC MINOR: **V7 / V** **resolving to:** **V**

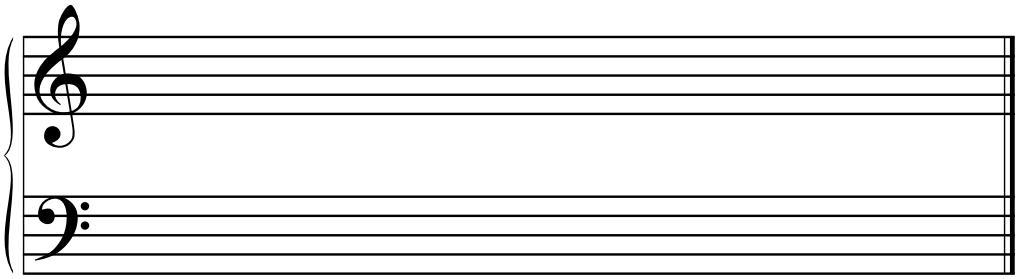
Chapter 10: Exercises Resolving
Secondary Dominant Seventh Chords
(continued)

Below in the grand staff, please create in the key of A natural minor, a V7 / III harmonized in a four-part chorale setting with its appropriate resolution to its III (also known as a VII7 – III progression).



A NATURAL MINOR: V7/III resolving to: III
Also indicated as: VII7 resolving to: III

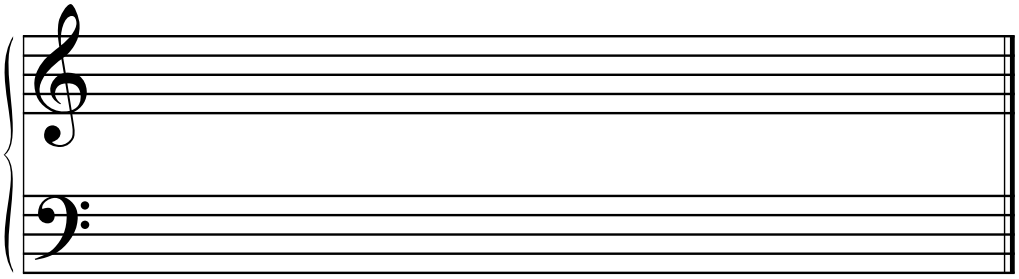
Below in the grand staff, please create in the key of B flat major, a V7 / vi harmonized in a four-part chorale setting with its appropriate resolution to its vi.



Bb MAJOR: V7 / vi resolving to: vi

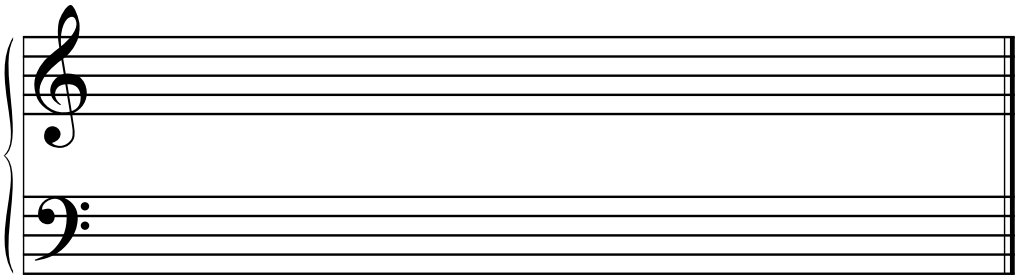
Chapter 10: Exercises Resolving
Secondary Dominant Seventh Chords
(continued)

Below in the grand staff, please create in the key of A major, a V7 / IV harmonized in a four-part chorale setting with its appropriate resolution to its IV.



A MAJOR: **V7 / IV** **resolving to:** **IV**

Below in the grand staff, please create in the key of F major, a V7 / ii harmonized in a four-part chorale setting with its appropriate resolution to its ii.



F MAJOR: **V7 / ii** **resolving to:** **ii**

WORKBOOK

Chapter 11:
Diatonic and Chromatic Diminished Seventh Chords: An Overview

Overview of the full-diminished seventh chords

Introduction

The full-diminished seventh chord is probably by far the most elusive and complicated chromatic harmony to understand. However, when a composer does fully grasp and understand its unique powers of transportation and immediate gratification within a diatonic or chromatic landscape, the full-diminished seventh chord can facilitate multiple as well as remote destinations from home. The full-diminished seventh chord can serve as a tool for close or remote modulations that are diatonic or chromatic as well as to connect relatively remote harmonies. Embracing its enduing efficacy allows a composer a more sanguine approach to tonicizations and modulations.

Intervallic structure and diatonic resolution

A full-diminished seventh chord is diatonic in the harmonic minor scale, but is not in a major key. Instead, the diminished seventh chord in a major key is a half-diminished seventh chord, built on the seventh degree (e.g., in the key of C major, a diminished triad with a minor seventh would be B-D-F-A). The half-diminished seventh chord is also built on the second degree in the natural and descending melodic minor scales and built on the seventh degree of the ascending melodic minor scale. The chief difference between a half-diminished seventh chord and a full-diminished seventh is the type of seventh superimposed over its diminished triad; e.g., the half-diminished seventh chord consists of a diminished triad and a minor seventh, whereas a full-diminished seventh chord consists of a diminished triad and a diminished seventh [see Appendix F].

In C major, the indigenous half-diminished seventh chord would include four notes: B natural, D natural, F natural, and A natural. The role and function of a half-diminished seventh chord is not quite the same as a full-diminished seventh chord, which is not a regular member of the diatonic major scale. However, it is not uncommon to borrow from the harmonic minor scale its diatonic sixth degree to create a full-diminished seventh chord in a major key. The intervallic structure of a full-diminished seventh chord must include a diminished seventh above the root of its diminished triad [see examples of half- and full-diminished seventh chords in Appendix F]. When the diatonic sixth degree from the parallel minor is added to the diatonic major's diminished triad (e.g., in C major, the borrowed sixth degree from the parallel minor would be A flat),, a full-diminished seventh chord is formed (e.g., B-D-F-A flat). Because the borrowed diminished seventh is derived from the diatonic sixth degree of the parallel minor scale, the interchangeability between modes of the full-diminished seventh chord is easier to understand and accept. With the borrowed diatonic sixth degree from the minor scale (the lowered sixth degree in major), the intervallic structure of a full-diminished seventh chord is complete.

Chapter 11: Diatonic and Chromatic Diminished Seventh Chords: An Overview (continued)

When a diminished seventh is added to a diminished triad, all four tones become equidistant from each other creating a superimposition of minor thirds.

For Example:

Seventh: Ab
] Minor third
Fifth: F
] Minor Third
Third: D
] Minor Third
Root: B

Because of its intervallic structure, a full-diminished seventh chord consisting of intervals that are equidistant from each other, will always require at least one accidental on either the root, third, fifth, or seventh. Two examples of a full-diminished seventh chord with only one accidental are: 1) the B full-diminished seventh chord, consisting of B natural, D natural, F natural, and A flat; 2) G sharp full-diminished seventh chord, consisting of G sharp, B natural, D natural, and F natural. Apart from these two examples, the remaining full-diminished seventh chords will require at least two accidentals, for example a C sharp full-diminished seventh chord consists of C sharp, E natural, G natural, and B flat. The reason behind the full-diminished seventh chord always including at least one accidental is because the equidistance of all minor thirds cannot be formed on only natural notes, which are equivalent to only the white keys on a piano's keyboard.

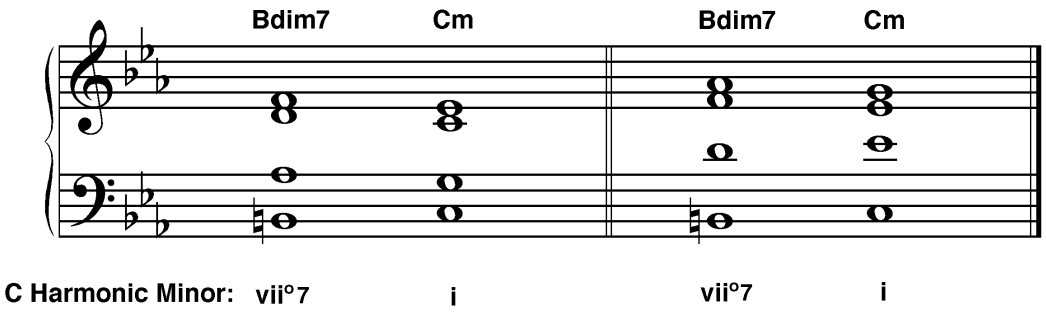
Although a full-diminished seventh chord is not endemic of a diatonic major scale, the borrowed full-diminished seventh chord from the parallel harmonic minor scale is very common in major keys. Regardless of the major or minor key, the destination of a full-diminished seventh chord built on the seventh degree of its scale is to resolve to its tonic triad, with its resolution as often to major triads as to minor triads.

When a full-diminished seventh chord is based on the seventh degree of the scale, its root is a semi-tone below the root of its tonic chord of resolution. The seventh degree or triad built on the seventh degree of the major, harmonic, and ascending melodic minor scales is called, respectively, leading tone or leading-tone chord. It has been labeled a leading-tone chord because its root leads up a half step to the root of the tonic triad. The root of a diminished triad or full-diminished seventh chord has a strong gravitational pull upward to the root of the next chord above it, creating a sense of stability and "home" with its resolution. Equal to the root resolving upward a semi-tone to the root of its successor, the diminished seventh must conversely resolve downward by a half step to the fifth of the tonic chord. The remaining two tones, the third and fifth of the full-diminished seventh chord usually resolve down by whole or half step depending on whether it is major or minor. However, depending also on the voicing of the next harmony, the third can also resolve up by step instead of downward.

For example, below there are two resolutions of a B full-diminished seventh chord in C harmonic minor. The first two examples both demonstrate how the root and diminished seventh of the full-diminished seventh chord in the outer voices converge, respectively, to the root and fifth of the tonic triad. The remaining tones of the full-diminished seventh chord, its minor third and diminished fifth in the inner

voices, resolve in the first example down by a whole step, respectively, to the root and minor third of the tonic triad. With all four voices resolving by step accordingly, a doubled root of the tonic is approached by contrary motion. The second example, however, illustrates how the minor third of the of the full-diminished seventh chord resolves up by a semi-tone to the minor third of the tonic chord, which creates instead a doubled minor third of the tonic triad. Both examples are acceptable in four-part writing with the tonic chord including either a doubled root or minor third. This same example can also be employed in the parallel key, C major.

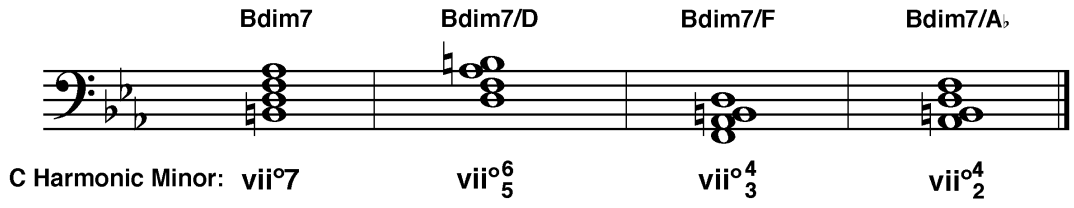
Example:



The position and nomenclature of a full-diminished seventh chord

A full-diminished seventh chord is more often found in first inversion, although root and second inversions are acceptable. A third inversion of a full-diminished seventh chord is less frequent than the other three positions. The third inversion is certainly acceptable in a cadential tonic six-four scenario or used to provide a means for a modulation [see examples in chapter 17 on evasive and irregular resolutions]. The system used to identify the position of a full-diminished seventh chord is the same as for all seventh chords. In the example below, the B full-diminished seventh chord of C minor is written out in its root, first, second, and third position. The nomenclature used above the staff is the contemporary or pop notation, and below the staff is the more traditional, academic notation system.

Example:



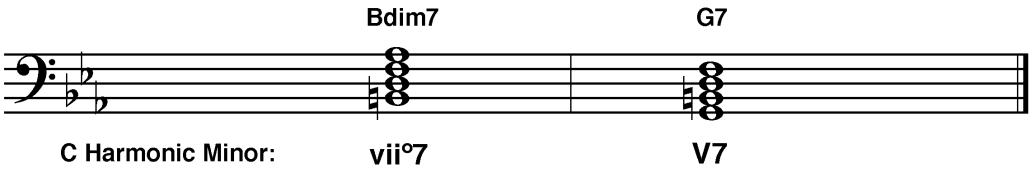
Chapter 11: Diatonic and Chromatic Diminished Seventh Chords: An Overview (continued)

The nomenclature used to identify a full-diminished seventh chord traditionally is a lower case Roman numeral with a small circle or degree sign juxtapose in the upper right hand corner, with an Arabic numeral placed either below or to the side of it, for example, vii$^{o}_{7}$. Some contemporary theorists have abandoned the lower case Roman numerals altogether in favor of upper case Roman numerals for analysis of all triads and seventh chords. Traditionally, however, major and augmented triads have used upper case Roman numerals because they both include a major third between its root and third. Similarly, minor and diminished triads have used lower case Roman numerals because they both include a minor third between its root and third. A circle or degree sign is added to the lower case Roman numeral to identify a diminished chord, and a plus symbol is added to the upper case Roman numeral for an augmented chord. In the notation for a full-diminished seventh chord in popular or contemporary music, especially writing with lead sheets, the degree sign (the circle) is sometimes, more often than not, substituted with the abbreviation of "dim", for example, Bdim7.

The full-diminished seventh chord's relationship to the dominant seventh and other chords

The equidistant structure between each tone of a full-diminished seventh chord (superimposed minor thirds) shares a similar resemblance to the augmented triad, which consists of all superimposed major thirds. Both the full-diminished seventh chord and augmented triad are equivocal in relationship with their resolution and identity. In addition, the full-diminished seventh chord shares a similar resemblance to the dominant seventh chord. The full-diminished seventh chord includes three of the same tones of a dominant seventh chord. The root, third, and fifth of a full-diminished seventh chord are employed as a third, fifth, and seventh of the dominant seventh chord. Both chords include the dissonant and unstable interval of the tritone. In the example below in C harmonic minor, the B full-diminished seventh chord is B natural, D natural, F natural, and A flat, while the G dominant seventh chord is G natural, B natural, D natural, and F natural.

Example:



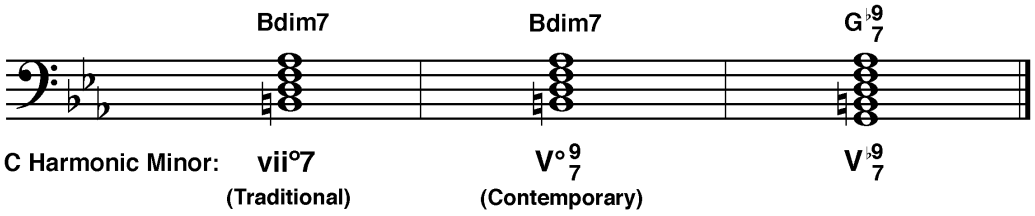
It is clear in the example above that the first three lowest tones of a full-diminished seventh chord are the last upper three tones of the dominant seventh chord, with the tritone between B natural and F natural in both chords. However, unique to the full-diminished seventh chord, and not the dominant seventh chord, its intervallic structure includes two interlocking tritones, which is also apparent with the French Augmented Sixth chord. For example, the B full-diminished seventh chord has a tritone between its root and fifth (B—F) and its third and seventh (D—Ab). Nonetheless, when a full-diminished seventh chord is built on the seventh degree, employed either in a major or minor scale, it has the same function and resolution as a dominant seventh chord to its tonic chord. Therefore, the primary role of a diatonic full-diminished seventh chord and a dominant seventh chord of the key serve to support and strengthen their tonic.

Its counterpart, however, a chromatic or also referred to as a secondary full-diminished seventh chord shares a similar characteristic role with secondary dominants. When a full-diminished seventh chord is built on a degree other than the seventh degree of the major or minor scale, it is referred to as a chromatic or secondary full-diminished seventh chord. When a borrowed full-diminished seventh chord from another key is employed in a diatonic framework, it functions as a secondary full-diminished seventh chord with the same function as a secondary dominant seventh chord. They both function to tonicize major or minor triads after they have resolved to them. Therefore, secondary full-diminished seventh chords and secondary dominant seventh chords have the same resemblance and relationship to the diatonic (primary) full-diminished seventh chords (built on the seventh degree) and primary dominant seventh chords, respectively.

Considering the similarities a full-diminished seventh chord and a dominant seventh chord have with each other, it is not uncommon for either one to substitute for each other when resolving to its tonic. Because both the full-diminished seventh chord and dominant seventh chord share such a similar role in music theory/composition with fortifying their home key, many contemporary theorists view the full-diminished seventh chord as a rootless (incomplete or implied) dominant seventh chord with an added minor ninth. In other words, the full-diminished seventh chord is viewed with the same function and properties of a dominant seventh chord; therefore, they are analyzed as a dominant seventh chord with an added minor ninth or as an incomplete (rootless) dominant seventh with a minor ninth. In the example below in C harmonic minor, if a G natural is added below the root of a B full-diminished seventh chord, it would be transformed as G natural, B natural, D natural, F natural, and A flat; a G dominant seventh with an added minor ninth. Therefore, both harmonies not only share three of the same notes; they also support the tonic chord of the diatonic major or minor key.

Although some theorists today prefer to analyze all full-diminished seventh chords as rootless (incomplete or implied) dominant seventh chords with a minor ninth (the nomenclature is given below), other theorists do not. More traditional theorists prefer to continue identifying full-diminished seventh chords with their traditional name based on identifying a harmony as is, or in other words, identifying them as they are exactly written in the music based on tertian harmony, rather than their harmonic implications.

Example:



Evasive or irregular resolutions of a full-diminished seventh chord

However, unlike the dominant seventh chord with its perfect fifth, the distinct harmonic color of a full-diminished seventh chord is very different in sound, primarily from its diminished fifth and diminished seventh. Both intervals, the diminished fifth and diminished seventh, produce a strong dissonance and instability that creates an urgency for resolution and repose. However, without the presence of a perfect fifth (inherent of dominant seventh chords) in the intervallic structure of a full-diminished seventh chord, it

does not allow it to possess the strength and ability to emphatically reinforce its tonic as does a dominant seventh chord. Therefore, when a dominant seventh chord follows a full-diminished seventh chord, or even a dominant triad for that matter, the dominant seventh's primary independent harmonic structure will absorb the autonomy and identity of the preceding harmonies.

As mentioned earlier, because the intervallic structure of a full-diminished seventh chord is made up of equidistant intervals and does not include the stability of a perfect fifth interval, any tone of the full-diminished seventh chord can resolve up or down by half step to support the following chord. In other words, all four tones of a full-diminished seventh chord can function as an upper or lower leading tone to its successor, a total of eight resolutions per full-diminished seventh chord. Therefore, a full-diminished seventh chord has more diversity in its resolution than a dominant seventh chord. These added leading tones indigenous to a full-diminished seventh chord provide the chord ample opportunities for evaded or irregular resolutions within a diatonic scale [see musical examples in Chapter 17]. The numerous irregular or evaded resolutions of a full-diminished seventh chord (other than its own tonic from the diatonic major or minor key), have the ability to connect relatively remote harmonies and to modulate or tonicize to other nearby or remote tonal regions. Therefore, a diatonic or chromatic full-diminished seventh chord shares the same role and function as secondary dominant seventh chords in a diatonic mode. It is also important to remember that although the origins of a full-diminished seventh chord can be found in a diatonic mode, it often is used more frequently and diversely in chromatic music.

Conclusion

The intervallic structure of a full-diminished seventh chord may be simple with its four tones equidistant from each other (the superimposition of minor thirds), its resolution, however, is clearly fleeting and equivocal. The full-diminished seventh chord's identity is not fully recognized until after its resolution to its tonic. Resonating alone without its resolution to its tonic, the full-diminished seventh chord is clearly lost with a multitude of destinations it may embark. Only until after it has finally resolved to its tonic does its identity become realized. Unlike its counterpart, the dominant seventh with its perfect fifth provides more sense of direction than the full-diminished seventh chord. Although both chords are dissonant and beg for resolution, the dominant seventh chord provides clarity of its true direction and motive even before its resolution to home is fully realized. In other words, when a sophisticated listener hears a dominant seventh chord without any resolution as in a half (transposed) cadence, the listener hears its tonic nevertheless. With a full-diminished seventh chord, however, this is not quite as simply understood sonically or theoretically!

For a composer, a full-diminished seventh chord can be analogous to a candy store or Disneyland; which candy or ride do you want next? There are so many choices and destinations of resolution to the full-diminished seventh chord that a composer has the potential to travel remote regions of the musical galaxy. Composers can achieve quite unique and remote modulations without any elaborate bridges or segues with one single harmony. The full-diminished seventh chord is tantamount to the theory of what a wormhole is to science and astronomy or to the famous phrase from Star Trek "Scotty, beam me up!" It is truly an expedient harmony, which can exponentially connect remote progressions and facilitate smooth modulations. The full-diminished seventh chord is distinctly a harmony with multiple personalities!

WORKBOOK

Chapter 12:
Diatonic and Chromatic Diminished Seventh Chords: Important Facts

Important facts on the diminished seventh chords: A review

1. A full-diminished seventh chord consists of four tones.

2. The four tones of a full-diminished seventh chord are equidistant from each other. Its intervallic structure consists of the superimposition of minor thirds.

3. A full-diminished seventh chord consists of a diminished triad with an added diminished seventh.

4. A full-diminished seventh chord is heard as a dissonant identity, which desires resolution to a repose, consonant, and stable harmony.

5. When a full-diminished seventh chord is built on the seventh degree of a scale, its preferred destination is to resolve to its tonic triad.

6. Full-diminished seventh chords resolve as often to major triads as to minor triads.

7. A full-diminished seventh chord is naturally found on the seventh degree of the harmonic minor scale. When employed in a major key, it is borrowed from its parallel minor key.

8. A full-diminished seventh chord without a resolution would imply numerous destinations; therefore, it does not have a true identity of its own as does the dominant seventh chord. A dominant seventh chord suggests the resolution to a tonic, whereas a full-diminished seventh chord implies multiple resolutions.

9. When isolated, a full-diminished seventh chord suggests ambiguity.

10. The full-diminished seventh chord compared to any other seventh chord has the potential and power to connect relatively remote harmonies and to modulate or tonicize to other remote regions.

11. The structure of a full-diminished seventh chord is not the same as a half-diminished seventh chord. The half-diminished seventh chord also includes a diminished triad, but it has a minor seventh instead of a diminished seventh; therefore, the half- and full-diminished seventh chords' function and resolution are slightly different.

12. The four tones of a full-diminished seventh chord are equidistant from each other consisting of superimposed minor thirds. The full-diminished seventh chord shares a similar resemblance to the augmented triad, which consists of superimposed major thirds. Both the full-diminished seventh chord and augmented triad are equivocal with its resolution and identity.

13. The interval of a tritone can be found in a full-diminished seventh chord, just as it can be found in a half-diminished seventh chord and dominant seventh chord.

14. A full-diminished seventh chord is more often found in first inversion, although root and second inversions are acceptable. A third inversion of a full-diminished seventh chord is less frequent. It is acceptable in a cadential tonic six-four scenario or to provide a means for modulation [see Chapter 17 on evasive and irregular resolutions].

Chapter 12: Diatonic and Chromatic Diminished Seventh Chords: Important Facts (continued)

15. From the root of a full-diminished seventh chord, the seventh is a diminished seventh derived from the diatonic minor scale; however, in a major key it is not. The diminished seventh must be borrowed from its parallel minor key. The diatonic sixth degree in a minor scale is the lowered sixth degree in a major scale. Thus, the diatonic sixth degree in minor must be incorporated in a major key to create a full-diminished seventh chord; otherwise, the diminished seventh chord in a diatonic major key is a half-diminished seventh chord. For example, a half-diminished seventh chord indigenous of C major is B natural, D natural, F natural, and **A natural.** However, if the diatonic sixth degree is borrowed from the parallel minor key and replaces the minor seventh of the half-diminished seventh chord in C major, it would become a full-diminished seventh chord. Therefore, its tones would consist of B natural, D natural, F natural, and **A flat**. The diminished seventh from the root of the full-diminished seventh chord is A flat, which is the lowered sixth degree of C major and the diatonic sixth degree of its parallel minor.

16. A full-diminished seventh chord can have the same resolution as a dominant seventh chord. Therefore, it may substitute a dominant seventh chord when progressing to its tonic and vice versa.

17. A full-diminished seventh chord may also be used as a secondary full-diminished seventh chord with the same function as a secondary dominant.

18. Many contemporary theorists view the full-diminished seventh chord as a rootless (incomplete or implied) dominant seventh chord with an added minor ninth or incomplete dominant ninth chord, with the same function and properties of a dominant seventh chord. For example, in the key of C major, a full-diminished seventh chord is B natural, D natural, F natural, and A flat. If you add a G natural below the root of a full-diminished seventh chord, it would be transformed as a G dominant seventh with an added minor ninth.

19. The root of a full-diminished seventh chord is a semi-tone below the root of its tonic chord of resolution. It has been labeled a “leading-tone” chord because its root leads up a half step to the root of its tonic. The root of a diminished triad or full-diminished seventh chord has a strong gravitational pull upward to the root of the next chord above it, creating a sense of stability with its resolution.

20. Regardless whether the full-diminished seventh chord is from its original key or borrowed as a secondary full-diminished seventh chord, when its root resolves to its successor a half step above, its resolution supports the following chord as a tonic of the key or a secondary tonic.

21. When resolving a full-diminished seventh chord, the root must resolve upward by a semi-tone to the root of its successor, while conversely the diminished seventh must resolve downward by a half step to the fifth of the tonic chord. The remaining two tones, the minor third and diminished fifth of the full-diminished seventh chord, usually resolve down by whole or half step. However, depending on the voicing of the next harmony, the minor third of the full-diminished seventh chord may also resolve up by step.

Chapter 12: Diatonic and Chromatic Diminished Seventh Chords: Important Facts (continued)

22. A diatonic (primary) full-diminished seventh chord and a chromatic (secondary) full-diminished seventh chord strengthen the harmonic movement when they resolve to the next harmony; dominant seventh chords or secondary dominant seventh chords achieve a similar effect. A full-diminished seventh chord of the key supports and strengthens the key, while a secondary full-diminished seventh chord can function to tonicize major or minor triads after their resolution to them. Secondary full-diminished seventh chords are similar to chromatic secondary dominants in function and resolution.

23. A full-diminished seventh chord will always require at least one accidental on either the root, third, fifth, or seventh. Two examples including only one accidental: 1) B natural, D natural, F natural, and A flat; 2) G sharp, B natural, D natural, and F natural. Most full-diminished seventh chords will require two accidentals, for example, C sharp, E natural, G natural, and B flat.

24. The nomenclature used to identify a full-diminished seventh chord traditionally is a lower case Roman numeral with a small circle or degree sign juxtapose in the upper right hand corner, with an Arabic numeral placed either below or to the side of it, for example, vii^{o}_{7}. Some contemporary theorists have abandoned using lower and upper case Roman numerals together, in favor of using only upper case Roman numerals regardless of the quality of the harmony. Traditionally, however, major and augmented triads have used upper case Roman numerals because they both include a major third between its root and third. Similarly, minor and diminished triads have used lower case Roman numerals because they both include a minor third between its root and third. In the notation for a full-diminished seventh chord in popular or contemporary music, especially writing with lead sheets, the degree sign (the circle) is often substituted with the abbreviation of "dim", for example, Bdim7.

25. Because the structure of a full-diminished seventh chord is made up of equidistant intervals, any tone of the chord can resolve up or down by half step to support the following chord. In other words, all four tones of a full-diminished seventh chord can function as a leading tone to its successor. Therefore, full-diminished seventh chords have as many as eight resolutions including to its own tonic of its key. They are employed for connecting remote harmonies or used for nearby and remote modulations and tonicizations.

26. Full-diminished seventh chords combined with non-harmonic tones can create an entire catalog of interesting possibilities that can color and enrich its harmony.

27. An evaded or irregular resolution of a full-diminished seventh chord would include a conspicuous common tone between it and the chord to which it resolves. For example in C minor, the diminished seventh A flat of a B full-diminished seventh chord remains as the root of the major submediant chord during a deceptive resolution. When resolving to its tonic, however, all four tones of a full-diminished seventh chord must resolve by step.

28. When a dominant seventh chord follows a dominant triad or full-diminished seventh chord, its primary independent harmonic structure will absorb the autonomy and identity of the preceding harmonies. In other words, the full-diminished seventh chord and the dominant triad do not possess the strength and ability to emphatically reinforce its tonic, as does a dominant seventh chord.

29. Although the origins of a full-diminished seventh chord can be found in a diatonic mode, it often is used more frequently and diversely in chromatic music.

WORKBOOK

Chapter 13:
Full-Diminished Seventh Chords: Selected Listening and Reading Materials

Selected compositions including a full-diminished seventh chord

Johann Sebastian Bach (1685-1750)

1. Toccata in D Minor, (Piece for Organ. Measures 7 and 8).

2. Minuet in G Minor, (Measure 27, Beat 2).

3. Prelude No. 1 in C Major, BWV 846[10] from the Well-Tempered Clavier, Book One, (Measures 12, 14, 22, and 23. Measure 28 with G pedal point, 1722).

Joseph Haydn (1732-1809)

Piano Sonata in C Sharp Minor, Hob. XVI/36, First Movement, (Measure 80, ca. 1770--75? Published 1780).

Muzio Clementi (1752-1832)

1. Sonatina in C Major, Op. 36, No. 1, Second Movement, (Measures 9 and 23, Beat 3).

2. Sonatina in C Major, Op. 36, No. 1, Third Movement, (Measures 3, 11, and 19).

Wolfgang Amadeus Mozart (1756-1791)

Piano Sonata in C Major, K. 545, First Movement, (Measure 68).

Piano Sonata in C Major, K. 545, Second Movement, (Measures 43, 45, and 70).

Piano Sonata in F Major, K. 332, Second Movement, (Measures 16 and 36, approximately 1782-1783).

Clarinet Concerto, K. 622, First Movement, (Measure 336, 1791).

Chapter 13: Full-Diminished Seventh Chords: Selected Listening and Reading Materials (continued)

Ludwig van Beethoven (1770-1827)

1. Sonata quasi una Fantasia, "Moonlight Sonata", Op. 27, No. 2, First Movement, (Measures 32, 34, and 35 with G# pedal point).

2. Piano Sonata No. 15 in D Major, Op. 28, Third Movement, (Measure 61, 1801).

3. Piano Sonata No. 8 in C Minor, Op. 13, First Movement, (Measure 1, 1797-1798).

4. Piano Sonata No. 1 in F Minor, Op. 2, First Movement, (Measure 41, 1795?).

Franz Schubert (1797-1828)

1. Erlkonig, D 328, (A Lied for Voice and Piano. Measure 14, 1815).

Fanny Mendelssohn Hensel (1805-1847)

O Herbst for A Cappella Chorus, (Measures 3, 5, and 21, 1846).

Robert Schumann (1810-1856)

1. Kleine Studie (Little Etude) from Album for the Young, Op. 68, (Measure 12, 1848).

Frederic Chopin (1810-1849)

Prelude in C Major, Op. 28, No. 1, (Measure 22, 1836-1839).

Franz Liszt (1811-1886)

Album Leaf, (Piano Piece in F Major. **$vii^{o}7$/ii:** Measure 9).

Richard Wagner (1813-1883)

1. Bridal Chorus from the Opera Lohengrin, (Measures 1 and 13).

Chapter 13: Full-Diminished Seventh Chords: Selected Listening and Reading Materials (continued)

Clara Schumann (1819-1896)

1. Andante Espressivo, No. 3 from Quatre Pieces Fugitives, Op. 15, (Piano Character Piece, Measure 76. Published 1845).

Peter Tchaikovsky (1840-1893)

1. Waltz of the Flowers from the NutCracker Suite, (Measures 2, 6, 18, and 22 from Piano Reduction).

John Lennon (1940-1980) and Paul McCartney (1942--)

Glass Onion, (At Fade of Coda, 1968).

Because, (Measures 10 and 20 as well as Coda and Final Measure, 1969).

Recommended reading materials of the full-diminished seventh chord (bibliography)

Piston, Walter and DeVoto, Mark. Harmony, Fifth Edition.

Part One: Tonal Harmony in Common Practice.

Chapter 21: The Diminished Seventh Chord, pp. 328 – 344.

Shir-Cliff, Justine. Chromatic Harmony.

Chapter 8: The Diminished Seventh Chord: Leading Tone Root, pp. 56 – 61.

Chapter 10: The Diminished Seventh Chord: Evaded Resolutions, pp. 67 – 72.

Spencer, Peter. The Practice of Harmony, Fifth Edition.

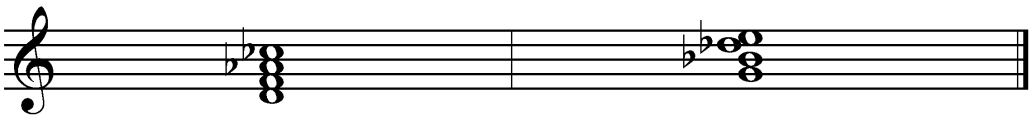
Chapter 19: Secondary Diminished Seventh Chords, pp. 233 – 246.

WORKBOOK

Chapter 14:
Full-Diminished Seventh Chords: Exercises Identifying and Creating vii^{o}7

Exercises identifying and creating full-diminished seventh chords

Below on the staff, please identify the full-diminished seventh chords, its root or inverted position, and key.



Name:
Position:
Key:

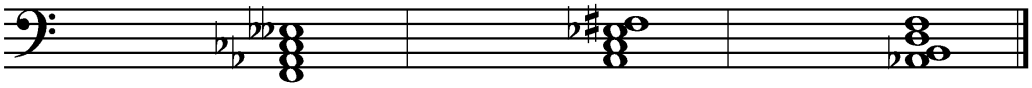
Name:
Position:
Key:

Name:
Position:
Key:

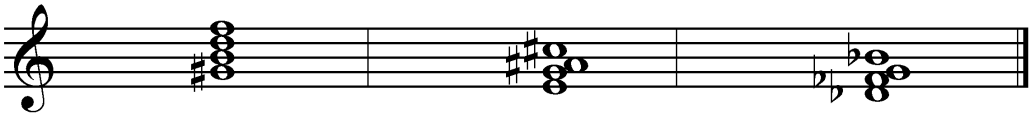
Name:
Position:
Key:

Chapter 14: Full-Diminished Seventh Chords: Exercises Identifying and Creating vii°7 (continued)

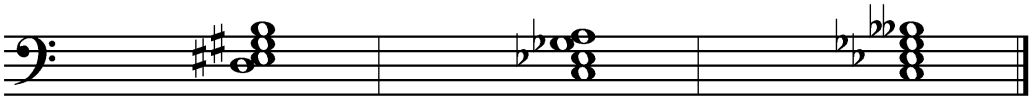
Below on the staff, please identify the full-diminished seventh chords, its root or inverted position, and key.



Name:	**Name:**	**Name:**
Position:	**Position:**	**Position:**
Key:	**Key:**	**Key:**



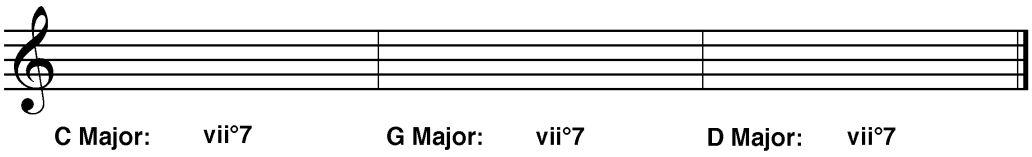
Name:	**Name:**	**Name:**
Position:	**Position:**	**Position:**
Key:	**Key:**	**Key:**



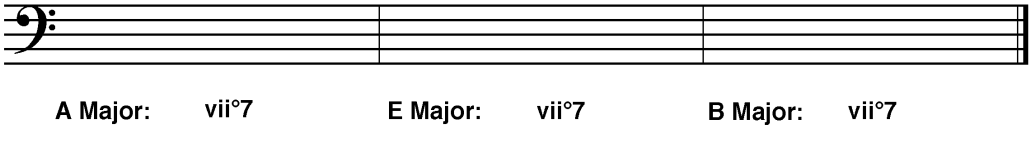
Name:	**Name:**	**Name:**
Position:	**Position:**	**Position:**
Key:	**Key:**	**Key:**

Chapter 14: Full-Diminished Seventh Chords: Exercises Identifying and Creating vii^{o}7 (continued)

Below on the staff, please create a vii^{0}7 in the following keys.

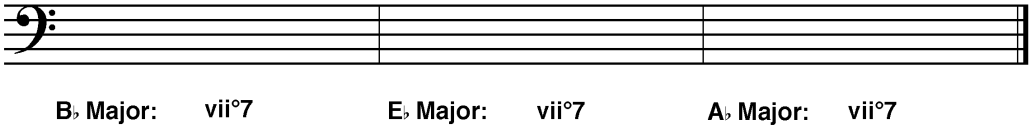


C Major: vii°7 **G Major: vii°7** **D Major: vii°7**

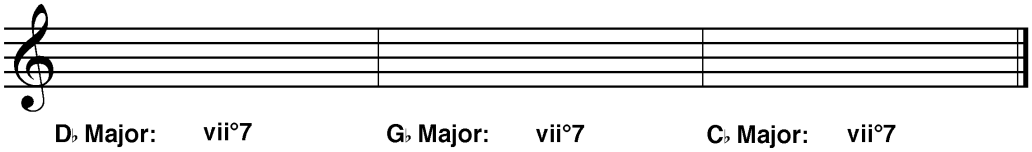


A Major: vii°7 **E Major: vii°7** **B Major: vii°7**

F# Major: vii°7 **C# Major: vii°7** **F Major: vii°7**



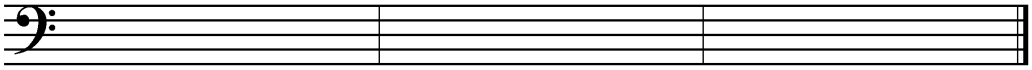
B♭ Major: vii°7 **E♭ Major: vii°7** **A♭ Major: vii°7**



D♭ Major: vii°7 **G♭ Major: vii°7** **C♭ Major: vii°7**

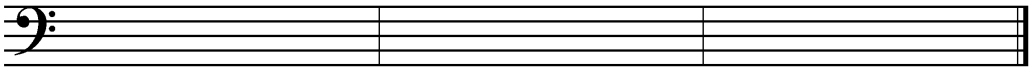
Chapter 14: Full-Diminished Seventh Chords: Exercises Identifying and Creating vii^{o}7 (continued)

Below on the staff, please create a vii^{0}7 in the following keys.



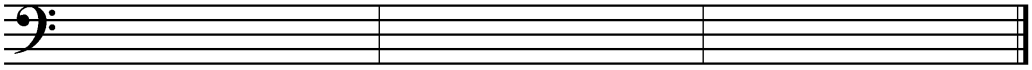
A Harmonic Minor: vii°7 E Harmonic Minor: vii°7 B Harmonic Minor: vii°7

Below on the staff, please create an inverted full-diminished seventh chord in the following keys.



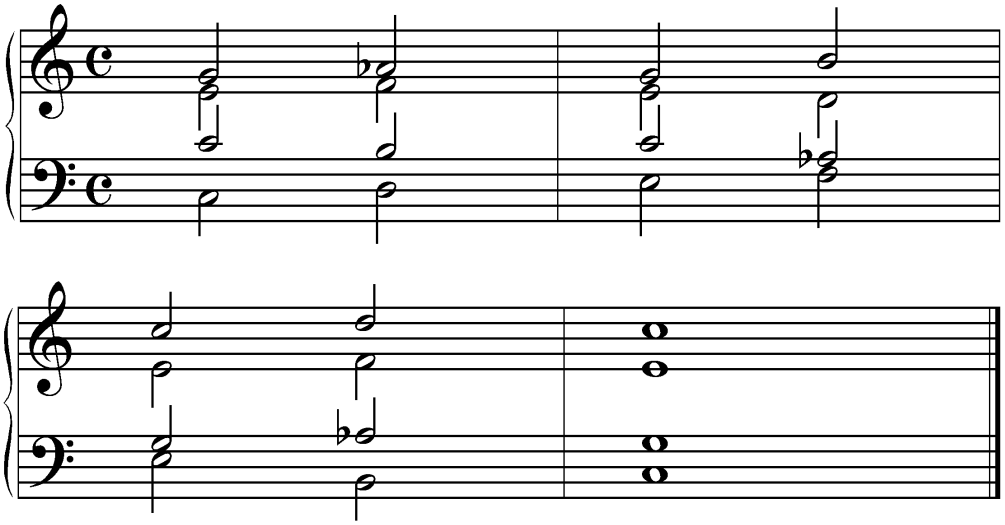
F# Harmonic Minor: vii°$^{6}_{5}$ G# Harmonic Minor: vii°$^{6}_{5}$ D# Harmonic Minor: vii°$^{6}_{5}$

A# Harmonic Minor: vii°$^{4}_{3}$ D Harmonic Minor: vii°$^{4}_{3}$ G Harmonic Minor: vii°$^{4}_{3}$

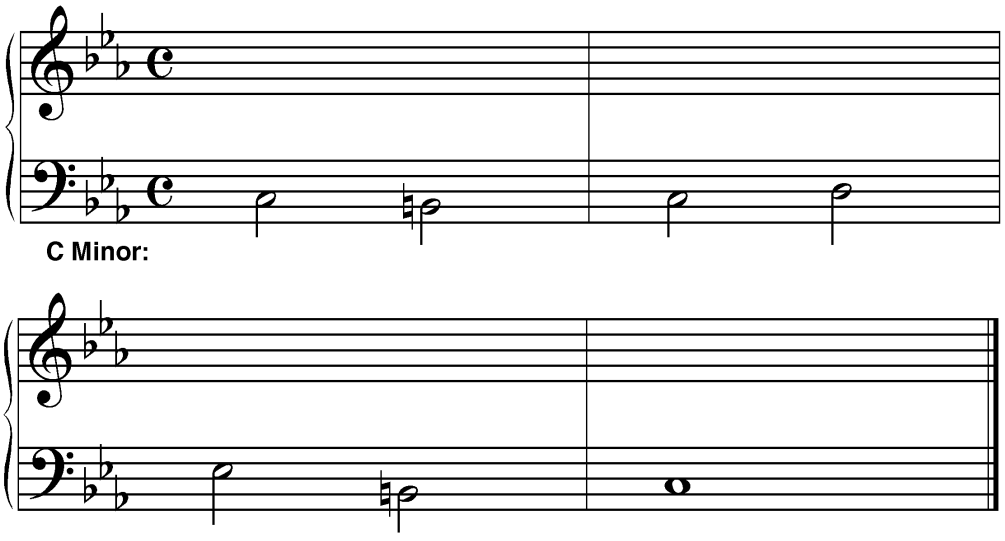


C Harmonic Minor: vii°$^{4}_{2}$ F Harmonic Minor: vii°$^{4}_{2}$ B♭ Harmonic Minor: vii°$^{4}_{2}$

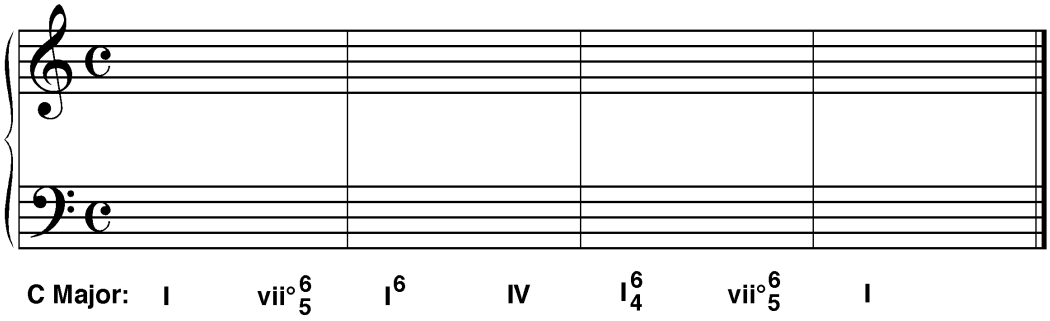
Analyze the four measure four-part chorale. Find the full-diminished seventh chord(s)



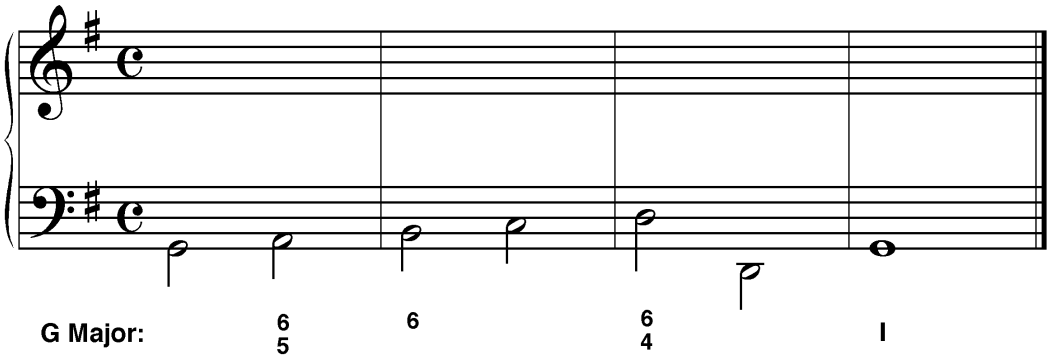
Add the tenor, alto, and soprano parts above the given bass line creating a four measure four-part chorale including one or more full-diminished seventh chord(s)



Create below a four-part chorale based on the harmonic symbols indicated



Create below a four-part chorale based on the figured bass, including full-diminished seventh chords



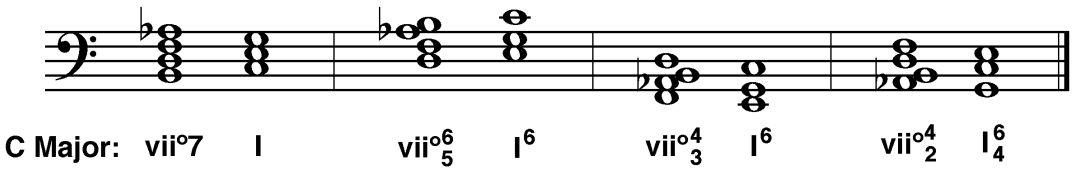
WORKBOOK

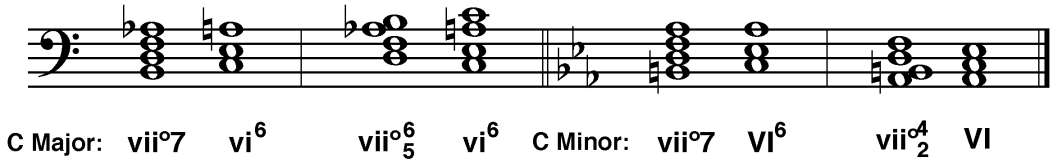
Chapter 15:
Full-Diminished Seventh Chords: Exercises Resolving vii°7

Examples resolving full-diminished seventh chords

Below on the staff are examples how to resolve a full-diminished seventh chord in root position as well as first, second, and third inversion.

Example:

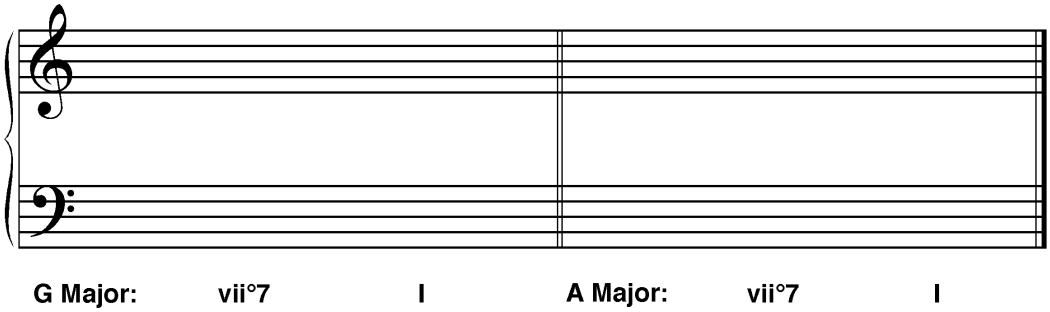




Exercises resolving full-diminished seventh chords

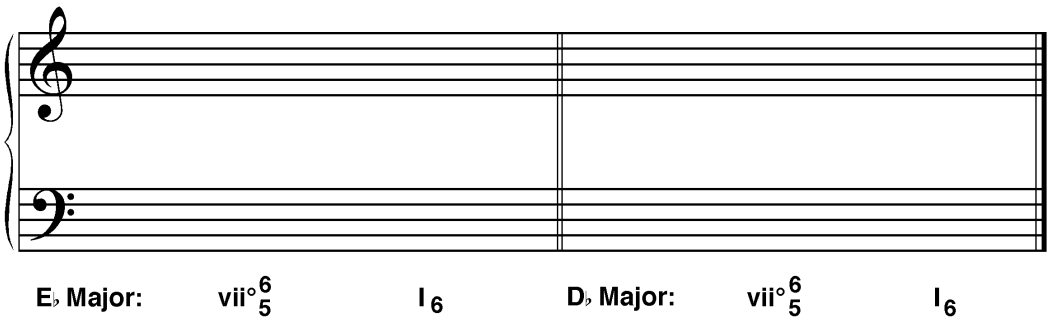
Below on the grand staff, please create and resolve the selected full-diminished seventh chords in the given key harmonized in four-parts with its appropriate resolution to its tonic triad.

Exercise:



Below on the grand staff, please create a first inversion full-diminished seventh chord in the given key, harmonized in four-parts with its appropriate resolution to its tonic triad also in first inversion.

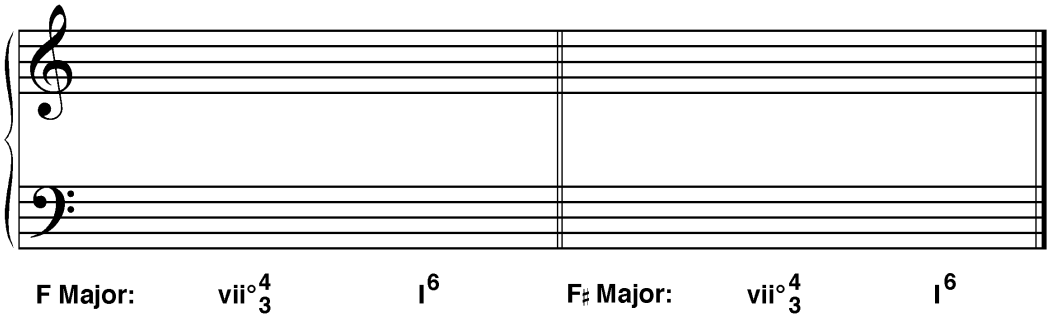
Exercise:



Chapter 15: Full-Diminished Seventh Chords: Exercises Resolving vii°7 (continued)

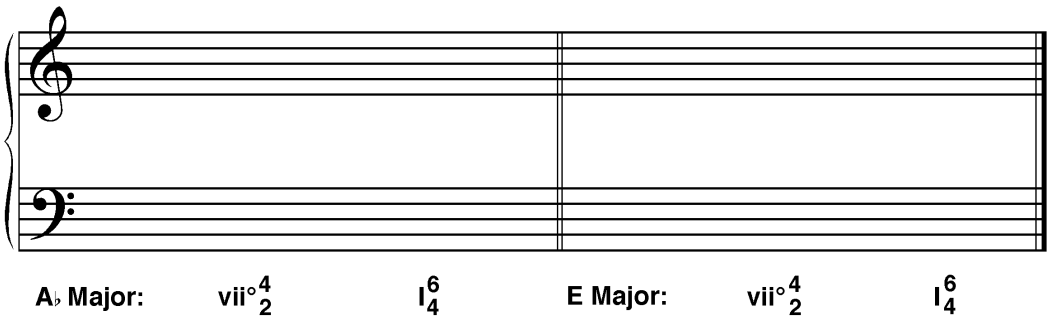
Below on the grand staff, please create a second inversion full-diminished seventh chord in the given key, harmonized in four-parts with its appropriate resolution to its tonic triad.

Exercises:



Below on the grand staff, please create a third inversion full-diminished seventh chord in the given key, harmonized in four-parts with its appropriate resolution to its tonic triad.

Exercises:



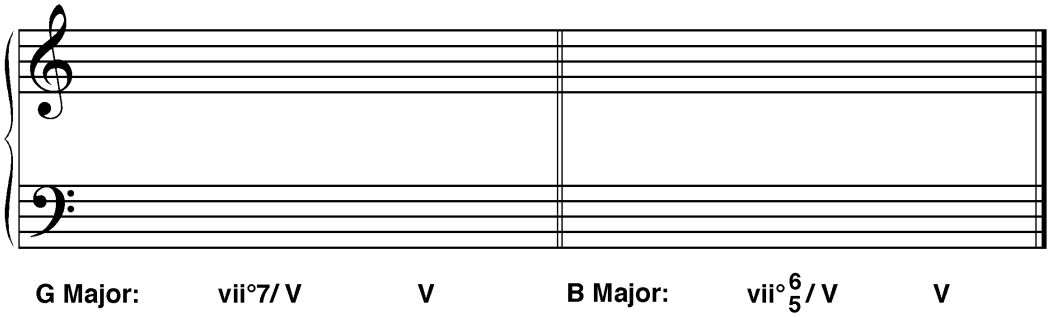
WORKBOOK

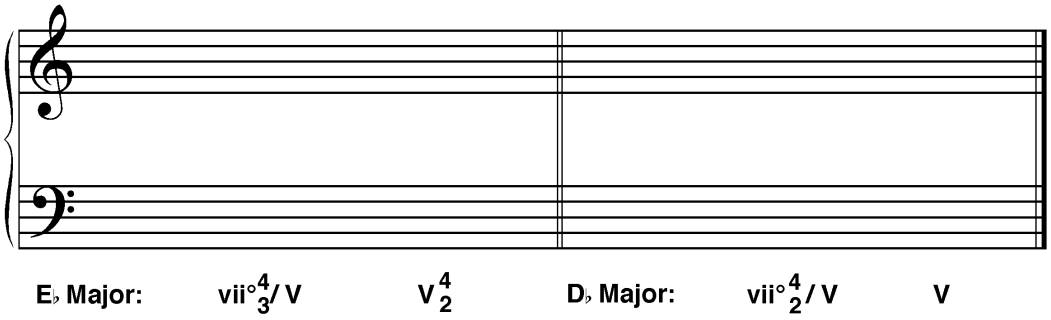
Chapter 16:
Secondary Full-Diminished Seventh Chords: Exercises Resolving Secondary vii^{o}7

Exercises resolving secondary vii^{o}7

Below on the grand staff, please create a vii^{o}7/V harmonized in a four-part chorale setting with its appropriate resolution to its V.

Exercises:

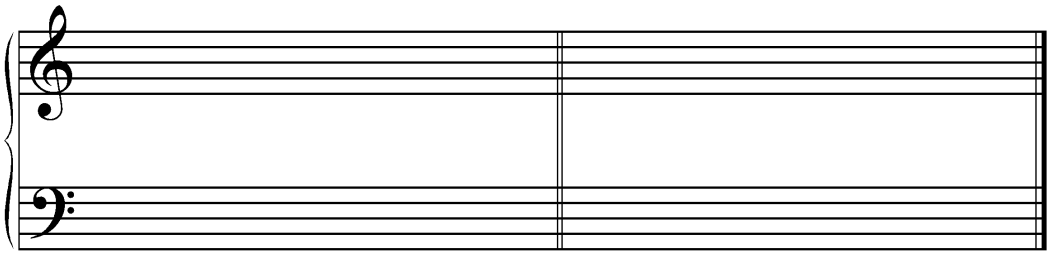




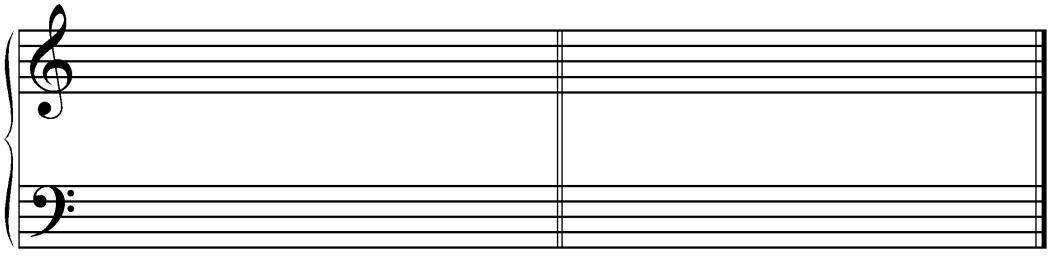
Chapter 16: Secondary Full-Diminished Seventh Chords: Exercises Resolving Secondary vii^{o}7 (continued)

Below on the grand staff, please create and resolve the following secondary vii^{o}7 in the given keys. Please harmonize in a four-part chorale setting.

Exercises:



C Major: vii°7/ ii ii **C♯ Major:** vii°7/ iii iii

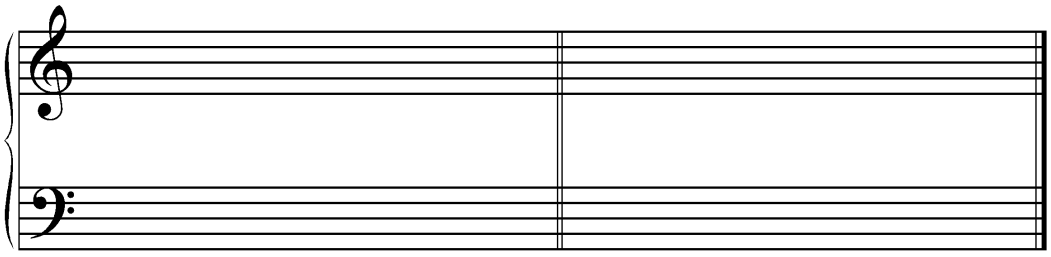


E Major: vii°7/IV IV **D Major:** vii°7/vi vi

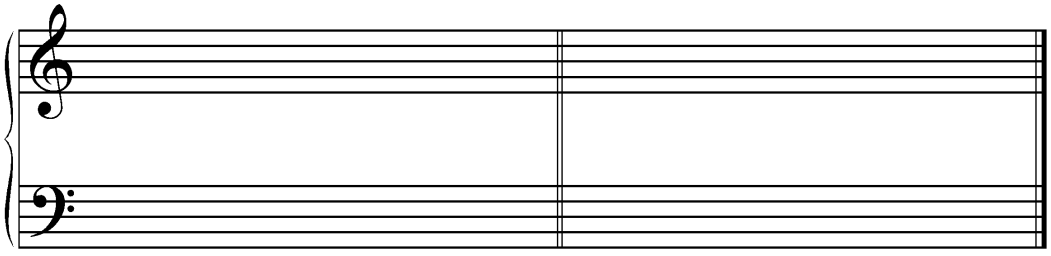
Chapter 16: Secondary Full-Diminished Seventh Chords: Exercises Resolving Secondary vii°7 (continued)

Below on the grand staff, please create and resolve the following secondary vii°7 in the given keys. Please harmonize in a four-part chorale setting.

Exercises:



G♭ Major: vii°7/vii° vii° **B♭ Major:** vii°$^{6}_{5}$/ ii ii



F♯ Major: vii°$^{4}_{3}$/ IV IV^{6} **A Major:** vii°$^{4}_{2}$/ vi vi$^{6}_{4}$

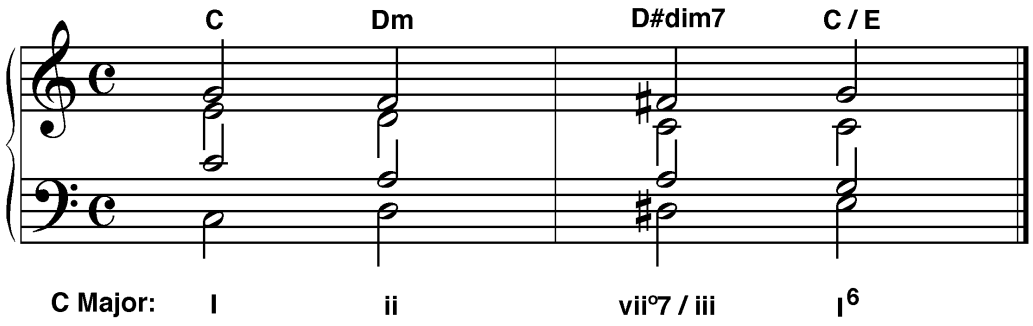
WORKBOOK

Chapter 17:
Full-Diminished Seventh Chords: Selected Examples and Exercises of Evasive and Irregular Resolutions

Selected examples of evasive and irregular resolutions

Below is one of many examples how a full-diminished seventh chord may resolve elsewhere than its original destination. In addition to the irregular resolution, the example below also demonstrates a passive progression with the full-diminished seventh chord functioning as a chromatic passing chord. Its resolution to home is clearly evaded by resolving to a first inversion C major triad instead of E minor.

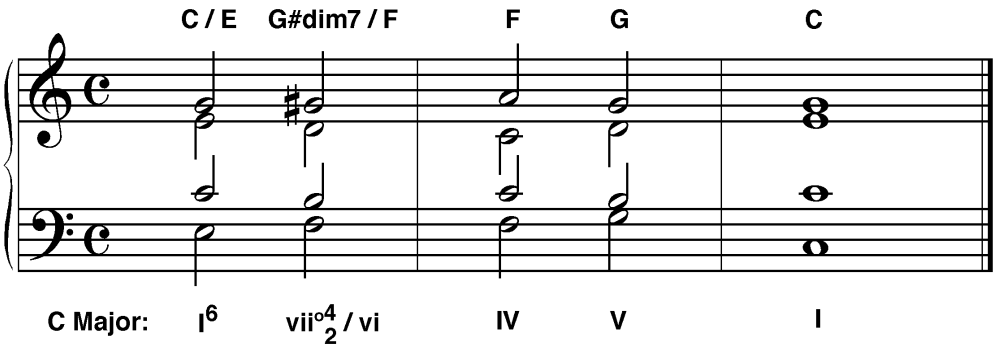
Example 1:



Similar to the example above, the second example below illustrates another irregular resolution where the full-diminished seventh chord avoids its original destination and evasively resolves somewhere else. In the example below in C major, the G sharp full-diminished seventh chord in third inversion signals the arrival of A minor, the submediant or relative minor of C major. However, it deceptively resolves chromatically to a root position F major triad, the subdominant of the key.

All but one tone resolves according to its normal, traditional resolution. The root of the G sharp full-diminished seventh chord resolves appropriately up by a half step to A natural, which in this example is the third of the subdominant in lieu of the root of the submediant. The third and fifth, B natural and D natural respectively, of the G sharp full-diminished seventh chord also resolves appropriately by converging up by half step and down by whole step to C natural, the fifth of the subdominant. If the resolution were not deceptive, the C natural would have been the third of the submediant chord. It is F natural, the diminished seventh of the G sharp full-diminished seventh chord, which does not resolve according to plan. In a traditional setting, the F natural (the diminished seventh) would resolve down by half step to the submediant's fifth, E natural. But the evasive resolution precludes such a motion, and the F natural remains as a common tone, the root of the subdominant.

Example 2:

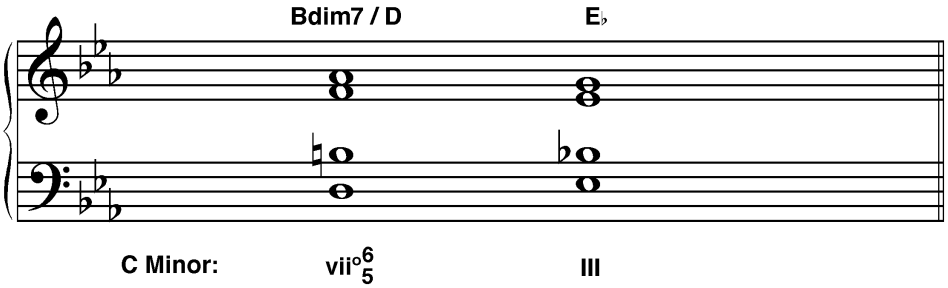


Chapter 17: Full-Diminished Seventh Chords: Selected Examples and Exercises of Evasive and Irregular Resolutions (continued)

The example below illustrates how a B full-diminished seventh chord of C harmonic minor can resolve deceptively to an E flat major triad, its mediant degree of the scale in lieu of its own tonic. In the key of C minor, the root B natural of the full-diminished seventh chord is suppose to serve as the lower leading tone to the root of the tonic triad, but instead functions as an upper leading tone. By descending to B flat, the fifth of the E flat major triad, the root of the B full-diminished seventh chord takes on an entire new function as upper leading tone.

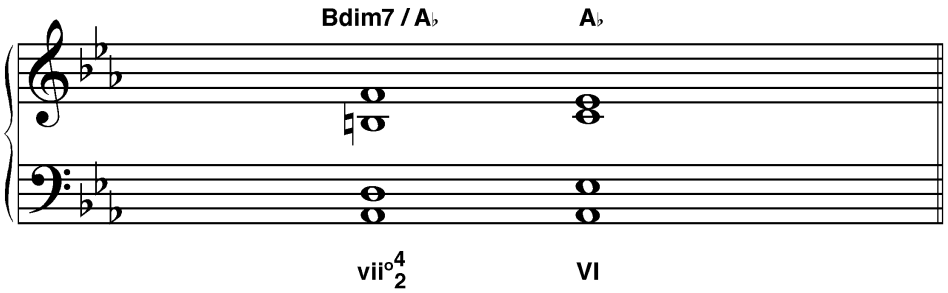
It is the third D natural of the full-diminished seventh chord that functions as the lower leading tone to the root of the E flat major triad. Had the chord been enharmonically spelled as D natural, F natural, A flat, and C flat, its function would have been a secondary full-diminished seventh chord in the key of C minor. However, the example below shows how a full-diminished seventh chord of the key can still manage the same effect and resolution through its evasive resolution. Simply by assigning new roles for one or more tones of the diminished seventh chord to have a different upper and lower leading tone function not only creates a new secondary tonic, but also results in an evasive resolution which points away from the home key.

Example 3:



This example is yet another which illustrates how a B full-diminished seventh chord of C harmonic minor can resolve evasively to another degree of the minor scale. This example shows how the B full-diminished seventh chord resolves to an A flat major triad, the submediant degree of the scale. The root B natural and third D natural both serve as lower leading tones to the major third and perfect fifth respectively of the A flat major triad. Usually the root of a full-diminished seventh chord resolves to the root of the tonic chord, but here it is to the major third of submediant triad. As for the diminished seventh A flat from the root of its chord, usually its role is to resolve down by half step to the fifth of the tonic chord. However, in this example, the diminished seventh A flat of the B full-diminished seventh chord remains as a common tone in its resolution. Rather than resolving down by half step, it remains as the root of the A flat major triad during the evasive resolution.

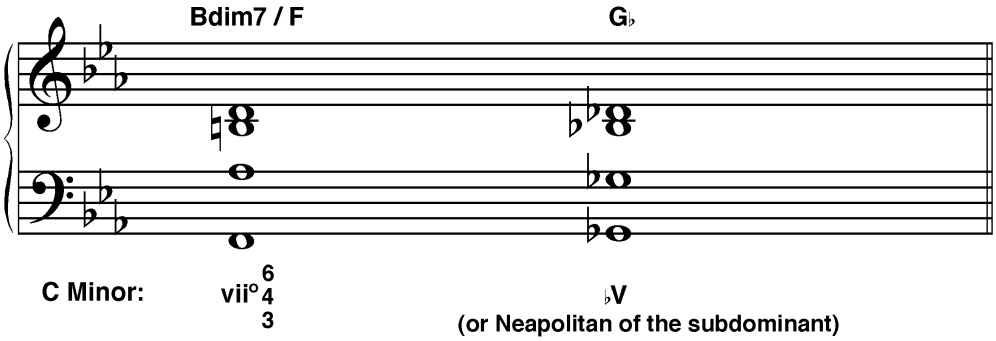
Example 4:



Chapter 17: Full-Diminished Seventh Chords: Selected Examples and Exercises of Evasive and Irregular Resolutions (continued)

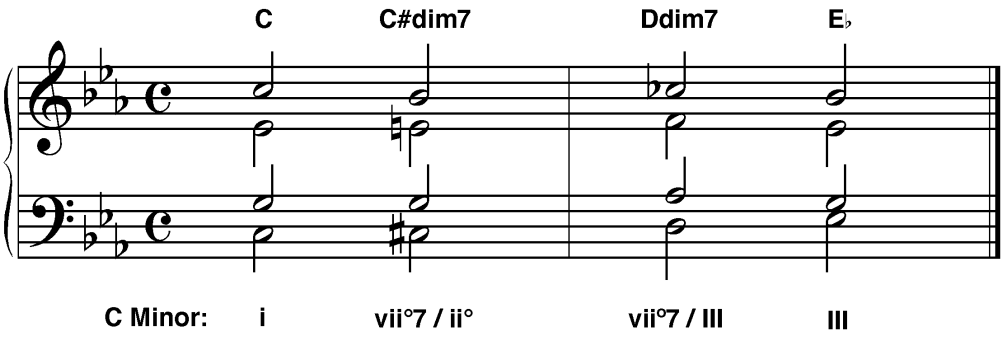
The example below illustrates how a B full-diminished seventh chord of C harmonic minor can resolve deceptively to a G flat major triad, the flat fifth degree of the scale in lieu of its own tonic. The B full-diminished seventh chord is in second inversion and the fifth of the chord functions as the lower leading tone to the root of the G flat major triad. The B natural (the root) and D natural (the third) of the full-diminished seventh chord serves as upper leading tones, which chromatically descends respectively to the major third and perfect fifth of the G flat major chord. Thus, this is another prime example how another tone from the full-diminished seventh chord other than its root can serve as a lower leading tone to the root of another chord, which creates a graceful and smooth modulation to a remote key.

Example 5:



The following example below illustrates how the C sharp full-diminished seventh chord does not resolve to the supertonic chord, but instead serves in a passive progression by resolving chromatically to another full-diminished seventh chord. Its resolution does not exploit the full-diminished seventh chord's dominant function by resolving to its tonic. Instead, the C sharp full-diminished seventh chord's irregular resolution is to a D full-diminished seventh chord, a secondary full-diminished seventh chord of the mediant degree of the scale. To some small degree the C sharp full-diminished seventh chord does find some resolution to the note D natural (the root of the next chord), but there is no stability or sense of repose since the chord that follows is also a dissonant harmony vying for resolution. As a result of two consecutive full-diminished seventh chords progressing chromatically by one half step creates similar motion between all four voices.

Example 6:



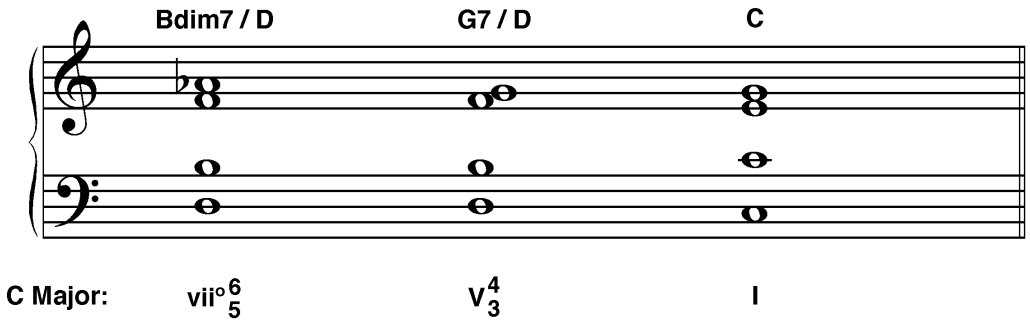
Chapter 17: Full-Diminished Seventh Chords: Selected Examples and Exercises of Evasive and Irregular Resolutions (continued)

The example below illustrates how a B full-diminished seventh chord becomes transformed as a dominant seventh chord before resolving to its tonic. As mentioned in chapter 16, the dominant seventh chord with its perfect fifth provides more sense of direction than the full-diminished seventh chord. Although both chords are dissonant and beg for resolution, the dominant seventh chord provides clarity of its true direction and motive even before its resolution to home become realized. This may explain why some composers may chromatically alter one tone of a full-diminished seventh chord to transform its harmonic timbre to a dominant seventh chord.

As we already learned, the full-diminished seventh chord has three of the same tones as the dominant seventh chord. The root, third, and fifth of a full-diminished seventh chord is the third, fifth, and seventh of the dominant seventh chord. By chromatically lowering one tone, the diminished seventh of a full-diminished seventh chord, it would be transformed into a dominant seventh chord.

In the example below, the B full-diminished seventh chord is in first inversion, with its third D natural in the lowest voice. When progressing to the dominant seventh chord in second inversion, the B full-diminished seventh chord's root, third, and fifth remain as common tones, while the diminished seventh descends by half step to the root of the G dominant seventh chord. As a result, a delay in its resolution occurs through such a progression, which may serve as an appropriate solution temporally within the composition's structural framework.

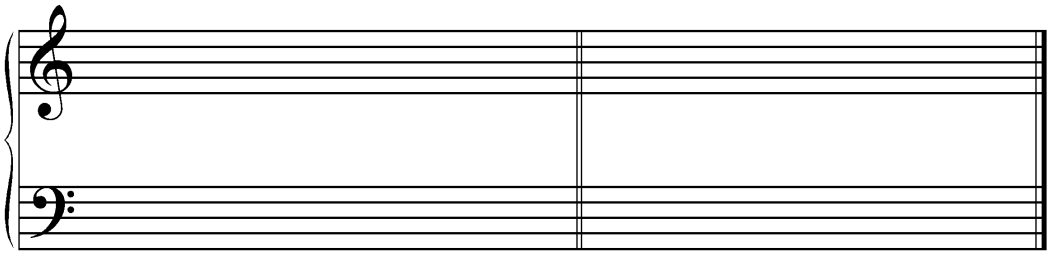
Example 7:



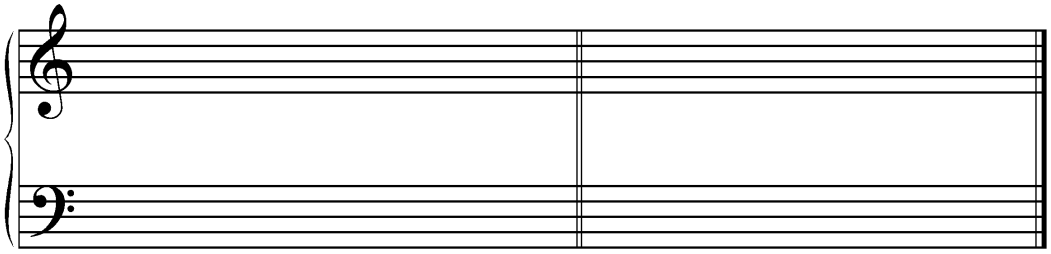
A few exercises pertaining to evasive and irregular resolutions

In the following full-diminished seventh chords in the selected keys below, please create an evasive resolution for each one.

Exercises:



C Major: vii°7 ? **G Major:** $vii^{\circ}{}_{5}^{6}$?

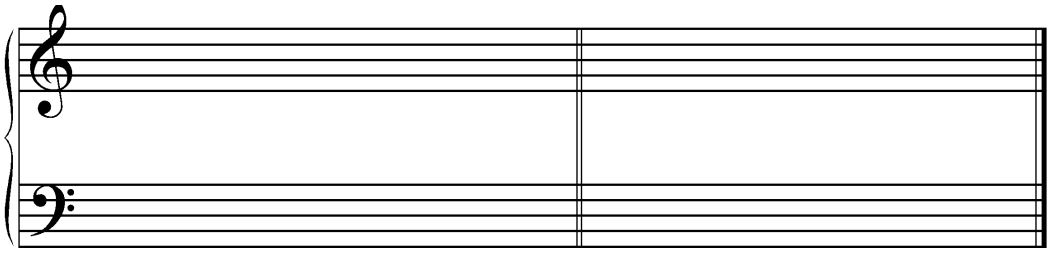


D Major: $vii^{\circ}{}_{3}^{4}$? **A Major:** $vii^{\circ}{}_{2}^{4}$?

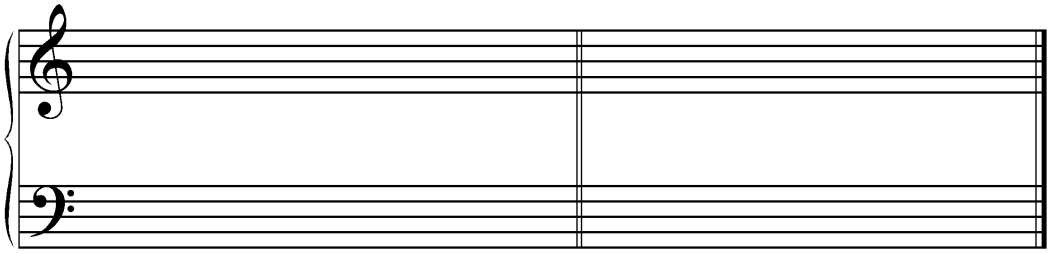
Chapter 17: Full-Diminished Seventh Chords: Selected Examples and Exercises of Evasive and Irregular Resolutions (continued)

In the following full-diminished seventh chords in the selected keys below, please create an evasive resolution for each one (continued).

Exercises:



F Major: vii°7 ? **B♭ Major:** vii°$^{6}_{5}$?



E♭ Major: vii°$^{4}_{3}$? **A♭ Major:** vii°$^{4}_{2}$?

WORKBOOK

Chapter 18:
The Neapolitan Sixth Chord: An Overview

The Neapolitan Sixth chord: A historical overview

It is uncertain exactly when and how the Neapolitan Sixth Chord developed. The term "Neapolitan" is also very conjectural. One very early example of the Neapolitan Sixth chord can be traced in a contrapuntal composition named "Vox in Rama" by a Flemish composer named Clemens Non Papa. This polyphonic work was written sometime during the late Renaissance period, approximately 1550. The composition illustrates how the Neapolitan in first inversion is a substitute for the subdominant or supertonic chord in first inversion, which precedes the dominant at a cadence. Because the Neapolitan is in first inversion, the term Neapolitan Sixth was used. Composers incorporated the Neapolitan Sixth, also known as a chromatically altered supertonic in first inversion, as a popular alternate formula at cadences. In lieu of the subdominant or supertonic chord in first inversion to precede a dominant or tonic six-four chord at a cadence, composers used the first inversion Neapolitan triad as a borrowed chord neither from the diatonic major or minor scales. The chromatic voice leading from the Neapolitan to the dominant as well as its strong root movement makes this progression very attractive, especially when the Neapolitan is in first inversion progressing to a root position dominant or tonic six-four chord. Only later, approximately in the 18th and 19th centuries, did composers employ the Neapolitan in root position and sometimes in second inversion.

The Neapolitan Sixth chord: A chromatically altered supertonic triad

The Neapolitan is a major triad, most often in first inversion, with its root built on the flat second degree of the scale. Its third is the fourth degree of the diatonic major or minor scale and its fifth is based on the lowered sixth degree of the major scale or diatonic sixth degree of the minor scale.

Example: The C major scale including the notes of the Neapolitan.

C	**Db**	D	E	**F**	G	**Ab**	A	B	C
1	**b2**	2	3	**4**	5	**b6**	6	7	8
	(Root)			**(Third)**		**(Fifth)**			

The first inversion Neapolitan, with its third in the lowest voice, functions as a substitute for the subdominant. The Neapolitan's third is the fourth degree of the scale. Because its third is also the root of the subdominant chord explains why the third of the Neapolitan is usually always doubled. This also explains why some theorists refer to the Neapolitan as a chromatic subdominant or a subdominant substitute with the same function of a subdominant.

Although much stress is placed on the doubled third of the Neapolitan Sixth and its association with its role as a substitute for the subdominant, the root of the Neapolitan chord is the chromatically lowered second degree of the major or minor scales. Therefore, the Neapolitan can also be understood as a chromatically altered supertonic.

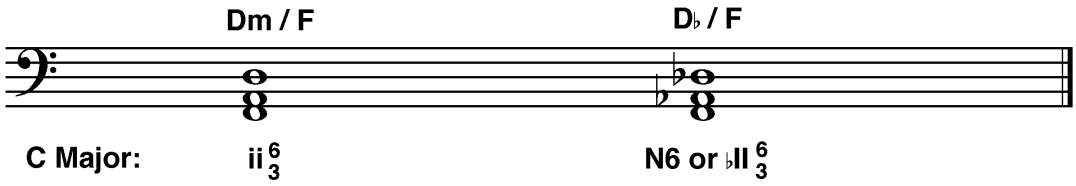
Chapter 18: The Neapolitan Sixth Chord: An Overview
(continued)

For example in C major, if you took the supertonic triad, D minor (D-F-A) and chromatically lowered its root (D natural) and its fifth (A natural) to D flat and A flat respectively, you would produce a D flat major triad: D flat—F natural—A flat.

As one can see, the third (F natural) remains the same and is not altered. The third of the Neapolitan is often doubled and is placed in the lowest voice part, creating a first inversion triad, hence its name Neapolitan Sixth (the term "sixth" refers to the triad in first inversion). As a result, the chromatically altered supertonic becomes a D flat major triad in first inversion. Its function and resolution is to lead to the dominant. Therefore, the resolution of the Neapolitan Sixth to the dominant of its key is no different than a first inversion supertonic or root position subdominant chord.

In the following example in C major, the supertonic D minor is written in first inversion. When the root and fifth of the supertonic are chromatically lowered a semi-tone, with the third remaining as a common tone, the Neapolitan Sixth chord is produced.

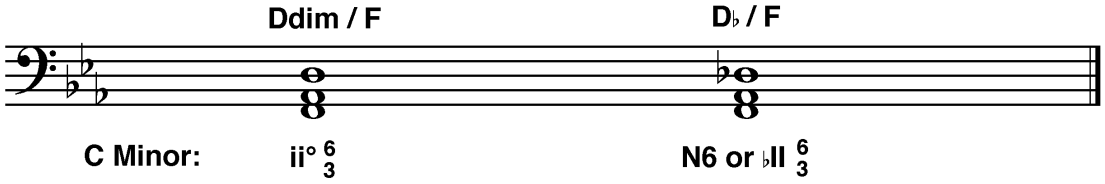
Example:



Taking the same scenario as above, but in the parallel minor key, C minor, the supertonic is a D diminished triad (natural, harmonic, and descending melodic minor scales only). In the parallel minor key, only the root D natural needs to be lowered a semi-tone to have it become a D flat major triad. As mentioned earlier, regardless if the key is major or minor, the Neapolitan Sixth (N6) functions the same as a first inversion supertonic or a root position subdominant resolving primarily to either the dominant or dominant seventh. Of course, other chords, especially the tonic six-four chord, may interrupt this progression.

In the following example in C minor, the supertonic in first inversion is a D diminished triad. By lowering its root chromatically a semi-tone would transform the diminished triad to a Neapolitan Sixth chord.

Example:

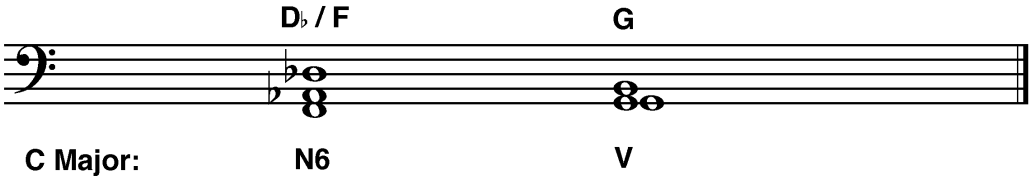


Chapter 18: The Neapolitan Sixth Chord: An Overview
(continued)

As a preparation for a musical cadence at the end of a phrase, section, or composition, the Neapolitan Sixth Chord has been used to primarily precede the dominant triad. However, it also progresses often to the dominant seventh or tonic six-four chord. Although the Neapolitan's primary role is to lead to the dominant, it can lead to any other chord as long as that chord proceeds immediately to the dominant. Some of the most common chords to interrupt a progression from the Neapolitan to the dominant are the tonic six-four chord, minor subdominant, $vii^{0}7/V$, or V/V, etc.

One reason why some composers have chosen to interrupt the Neapolitan's primary resolution to the dominant is the awkward voice leading of the root of the Neapolitan progressing to the major third of the dominant. The example below shows how the direct resolution of a Neapolitan to the dominant can result in the diminished third between the Neapolitan's root and the dominant's third.

Example:

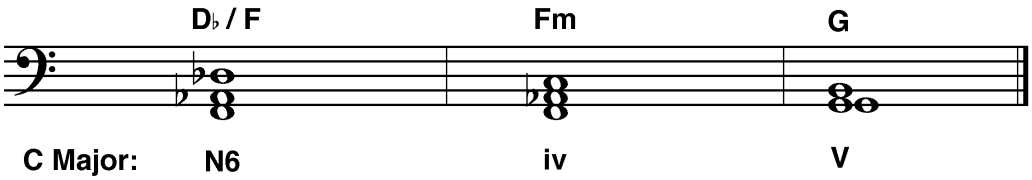


Although the awkward diminished third was idiomatic of such a progression and also acceptable during its time (example above), some composers preferred such interpolations by including a chromatic passing tone to create a clear and smooth melodic part writing (example below).

One such solution was to convert a Neapolitan Sixth chord into a minor subdominant before its resolution to the dominant. One must only lower the root of the Neapolitan chromatically to the minor subdominant's fifth to form a minor subdominant triad (see example below).

Below is an example of how the root of the Neapolitan can chromatically descend to the fifth of the minor subdominant before resolving to the dominant chord. Hence, avoiding the interval of a diminished third from the Neapolitan's root progressing to the dominant's third.

Example:



WORKBOOK

Chapter 19:
The Neapolitan Sixth Chord: Selected Listening and Reading Examples

List of musical compositions in workbook with an analysis on the Neapolitan Sixth chord

1. Vox in Rama, by Clemens Non Papa, (Renaissance Composer).
2. Moonlight Sonata, First Movement, by Ludwig van Beethoven, (1770-1827).
3. Transformation, Op. 44, No. 3, by Robert Franz, (1815-1892).
4. Papillon, Op. 43, No. 1, by Edvard Grieg, (1843-1907).
5. Andantino con Grazia, by Carl Czerny, (1791-1857).
6. Evergreen, music by Barbra Streisand, words by Paul Williams.

Additional works online for student analysis on the Neapolitan Sixth chord

1. Invention in A Minor, by John Stanely, (1714-1786).
2. Rondo from Sonatina, Op. 57, No. 2, by Fritz Spindler, (1817-1905).
3. Prelude in C Minor, Op. 28, No. 20, by Frederic Chopin, (1810-1849).

Chapter 19: The Neapolitan Sixth Chord: Selected Listening and Reading Examples (continued)

Additional works (not online) for student analysis on the Neapolitan Sixth chord in first inversion

1. Concerto Grosso No. 12 in B Minor, from Twelve Grand Concertos, Op. 6, (Measure 16, 1739), by George Frideric Handel, (1685-1759).

2. Scherzo in A Minor, (Keyboard Piece, Measure 18), by Johannes Sebastian Bach (1685-1750).

3. Piano Sonata in C Sharp Minor, First Movement, (Measure 5 and 71. Published 1780), by Joseph Haydn, (1732-1809).

4. Piano Sonata in D Major, K. 284, Theme with Variations, (Measure 10 from Variation VII, 1775), by Wolfgang Amadeus Mozart, (1756-1791).

5. String Quartet in E Minor, Op. 59, No. 2, (Measures 16-17 and 24-25. 1806), by Ludwig van Beethoven, (1770-1827).

6. Riding Cossacks, (Character Piece for Piano, Measure 8), by Antonio Diabelli (1781-1858).

7. Erlkonig, D 328, (Lied for Voice and Piano, Measure 146. 1815), by Franz Schubert, (1797-1828).

8. Moment Musical No. 6 from Sechs Moments Musicaux, Op. 94, D. 780, (Piano Character Piece, Measure 68. 1824), by Franz Schubert, (1797-1828).

9. Variations of a Theme of Robert Schumann, Op. 9, Variation V, (Measure 133. 1854), by Johannes Brahms, (1833-1897).

10. Sonata in F Minor for Clarinet and Piano, Op. 120, No. 1, First Movement, (Measures 8 and 28. 1894), by Johannes Brahms, (1833-1897).

Additional works (not online) for student analysis on the Neapolitan Sixth chord in root position

1. String Quartet in E Minor, Op. 59, No. 2, (Measures 6-7. 1806), by Ludwig van Beethoven, (1770-1827).

2. Der Doppelganger, from Schwanengesang, D. 957, (Lied for Voice and Piano, Measure 59. 1828), by Franz Schubert, (1797-1828).

3. Erlkonig, D 328, (Lied for Voice and Piano, Measure 117. 1815), by Franz Schubert, (1797-1828).

4. Prelude No 6 in B Minor, (Measures 12, 13, and 14. 1836-1839), by Frederic Chopin, (1810-1849).

5. Prelude No 20 in C Minor, (Measures 8 and 12. 1836-1839), by Frederic Chopin, (1810-1849).

6. Mazurka in A Minor, Op. 7, No. 2, (Measure 14. 1830-1831), by Frederic Chopin, (1810-1849).

7. Intermezzo in C Major, Op. 119, No. 3, (Measures 37 and 38. 1893), by Johannes Brahms, (1833-1897).

Recommended reading materials of the Neapolitan Sixth chord (bibliography)

Piston, Walter and DeVoto, Mark. Harmony, Fifth Edition.

Part One: Tonal Harmony in Common Practice

Chapter 26: The Neapolitan Sixth, pp. 407 – 418.

Shir-Cliff, Justine. Chromatic Harmony.

Chapter 7: The Neapolitan Sixth, pp. 51 – 55.

Spencer, Peter. The Practice of Harmony, Fifth Edition.

Chapter 22: The Neapolitan, pp. 271 – 282.

WORKBOOK

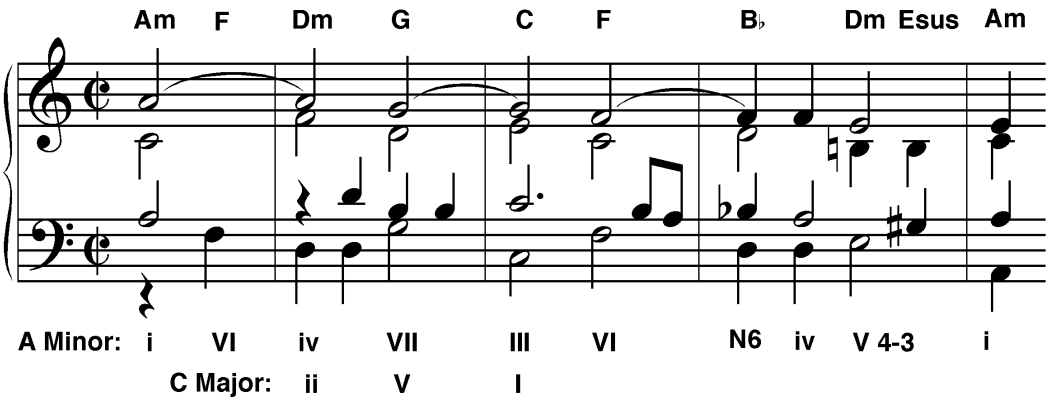
Chapter 20:
The Neapolitan Sixth Chord: Analyses

<u>Two examples of a Neapolitan Sixth being interrupted by the minor subdominant before progressing to a dominant</u>

The two musical compositions listed in the examples below 1) Vox in Rama by Clemens Non Papa and 2) Papillon, Op. 43, No. 1 by Edvard Grieg will illustrate how the interpolation of a descending chromatic line will create a smoother melodic part writing between the Neapolitan and the dominant. This insertion of the minor subdominant between them will eliminate the awkward diminished third between the Neapolitan's root and the dominant's third.

Vox in Rama, by Clemens Non Papa.

Example 1:



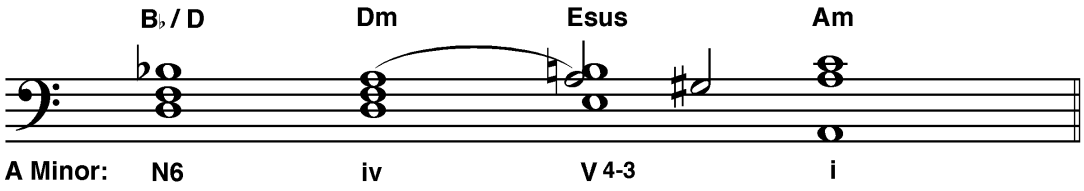
Chapter 20: The Neapolitan Sixth Chord: Analyses (continued)

Vox in Rama, by Clemens Non Papa (continued)

The above late Renaissance composition in A minor by Clemens Non Papa demonstrates the importance of contrapuntal, melodic part writing by including the minor subdominant between the Neapolitan Sixth and the dominant. In the penultimate measure of this example, the Neapolitan Sixth is in beat 1 with its third doubled in the bass and alto voices. The root of the Neapolitan, B flat in the tenor voice, chromatically descends to A natural creating in beat 2 a minor subdominant, D minor. The subdominant then progresses in beat 3 to the dominant with a 4—3 suspension. The A natural resolves chromatically to the dominant's raised third (harmonic minor) by beat 4, which creates a stronger imperfect authentic cadence with its resolution to its tonic A minor across the barline in beat 1.

Below is a closed position, harmonic reduction of the above analysis for the musical example Vox in Rama of the last two measures.

Example:

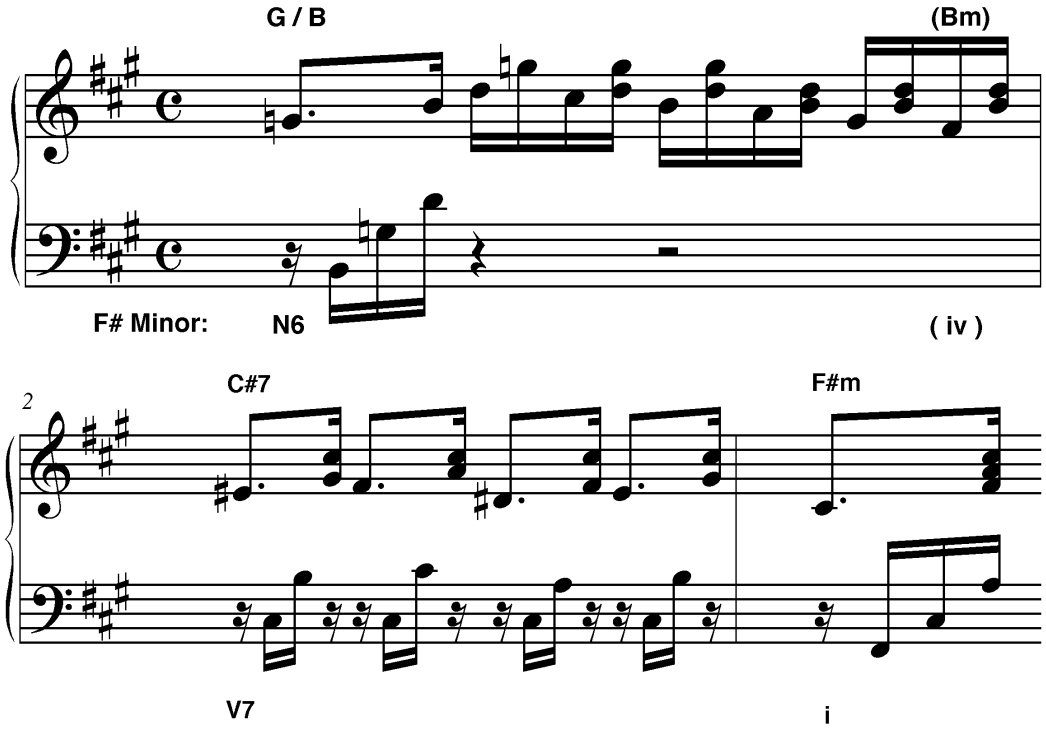


Chapter 20: The Neapolitan Sixth Chord: Analyses
(continued)

Papillon, Op. 43, No. 1, by Edvard Grieg.

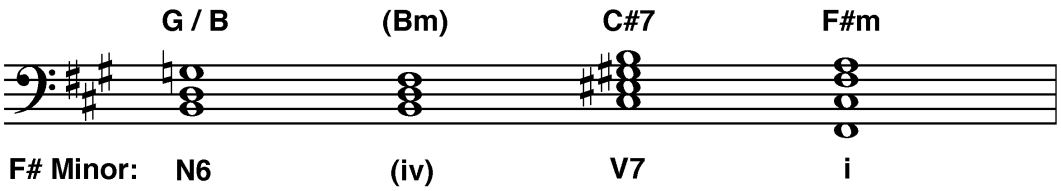
Grieg's Papillon in F sharp minor is a beautiful piano piece that evokes the carefree and quick flight of a butterfly by employing rhythmically a rapid up and down motion of tones outlining a Neapolitan Sixth for an entire measure before progressing to a dominant seventh in the following measure. The Neapolitan Sixth is a first inversion G major triad, the lowered second degree of F sharp minor. The G major triad is embellished with a descending scale pattern, which produces passing tones between each degree of its chord, first with C sharp, A natural, and finally F sharp. The final passing tone, F sharp, momentarily creates the harmony of a minor subdominant, B minor, when combined with the minor third dyad, B natural and D natural, that is presented right before and after. The passing F sharp resolves chromatically down to the third of the dominant, E sharp, in the following measure, creating another example of the Neapolitan's root being smoothly connected to the third of the dominant seventh through a passing minor subdominant triad. The dominant seventh is quite unequivocal in beats 1 and 4, but in beats 2 and 3 in the same measure could easily be construed as individual harmonies in itself. However, its real function is simply an embellished dominant seventh with beats 2 and 3 as double neighboring tones (changing tones), consecutive upper and lower neighboring tones to the third of the dominant seventh chord. The dominant seventh resolves to the tonic, F sharp minor triad in the following bar.

Example 2:



Below is a closed position, harmonic reduction of the analysis above.

Papillon, Op. 43, No. 1, by Edvard Grieg.

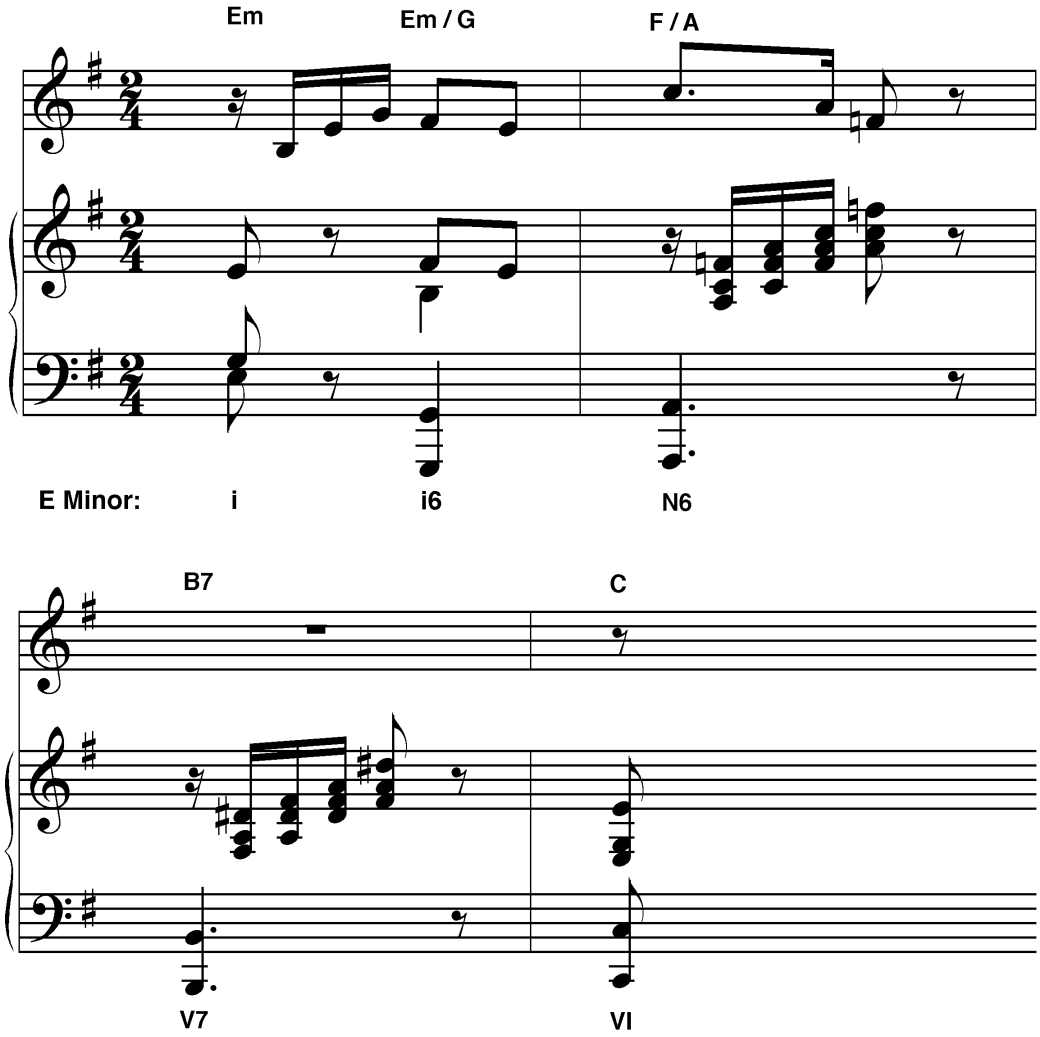


An example of a Neapolitan Sixth resolving to a dominant seventh chord

Transformation, Op. 44, No. 3, by Robert Franz.

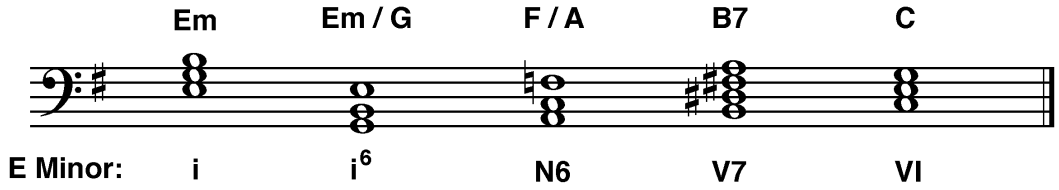
Robert Franz, a distinguished 19th century composer, primarily of songs, includes a Neapolitan Sixth in his composition Transformation, Op. 44, No. 3. The piece is in E minor with the excerpt showing the tonic E minor triad in root position in beat 1 and then in first inversion in beat 2. The entire following measure is an example of an arpeggiated arrangement of the Neapolitan Sixth, F major. Its octave third in the bass is doubled with an arpeggiated F major triad above. The F major triad in first inversion (N6) resolves directly to an arpeggiated root position B dominant seventh chord (B7). The B7 chord resolves deceptively on the downbeat of the next measure to a C major chord, the major submediant (VI) chord.

Example 1:



Below is a closed position, harmonic reduction of the analysis above.

Transformation, Op. 44, No. 3, by Robert Franz.



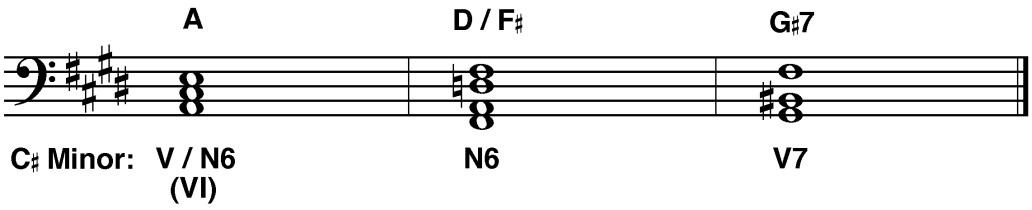
Another example of a Neapolitan Sixth resolving to a dominant seventh chord

Moonlight Sonata, First Movement, by Ludwig van Beethoven.

In the opening introduction to Beethoven's Moonlight Sonata in beat 3 of measure 3, Beethoven introduces a Neapolitan Sixth chord presented in an orthodox progression. After hearing the tonic triad in the first two measures, the A major triad in beat 1 of measure 3 functions as the dominant of the Neapolitan Sixth, although it is also the submediant (VI) of the minor key. The A major triad resolves smoothly to a first inversion D major triad, with the third appropriately doubled between the lowest voice (in octaves) and the upper voice. Beethoven unequivocally resolves the arpeggiated Neapolitan Sixth chord in a traditional manner to a dominant seventh chord. The octave thirds in the bass resolve up by step to the root of the dominant seventh chord, while the third in the soprano of the Neapolitan remains stationary and serves as the seventh of the dominant. The alto voice in the Neapolitan includes the root, D natural, which resolves down a diminished third to the dominant seventh's third B sharp. The diminished third progression is awkward, yet acceptable. Unlike Grieg's Papillon and Clemens Non Papa's Vox in Rama which included a passing tone between the root of the Neapolitan and third of the dominant, Beethoven welcomed the diminished third progression. The tenor voice of the Neapolitan, A natural, resolves downward by step to the root of the dominant seventh chord, creating contrary motion between the tenor and bass when both resolve directly to the root of the dominant seventh chord.

Below is a closed position, harmonic reduction of the analysis of Beethoven's Neapolitan Sixth in Moonlight Sonata.

Example 2:



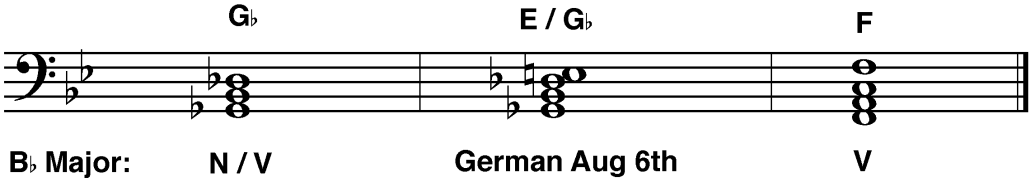
An example of a secondary, root position Neapolitan chord of the dominant

Andantino con Grazia, by Carl Czerny.

The delightful and lyrically beautiful Andantino con Grazia in B flat major by Czerny includes in measure 14 (without repeats) a G flat major triad which serves as a root position Neapolitan to the dominant triad of the key. The Neapolitan's resolution to the dominant does not happen until measure 16. In measure 15, the Neapolitan is interrupted by the introduction of E natural, which transforms the Neapolitan to a German Augmented Sixth chord. Nevertheless, the Neapolitan's primary destination is to the F major dominant despite the Augmented Sixth's interruption. The Andantino is a fine example where the composer used a less common root position Neapolitan functioning as though it is a secondary dominant. Equally interesting is how Czerny took advantage of integrating the borrowed E natural and the flat sixth degree of the parallel minor to create the German Augmented Sixth chord to interrupt the Neapolitan's progression to the dominant.

Below is a closed position, harmonic reduction of the analysis of Czerny's root position Neapolitan chord in Andantino con Grazia.

Example 1:



An example of a Neapolitan functioning as a dominant

"Evergreen", music by Barbra Streisand, words by Paul Williams.

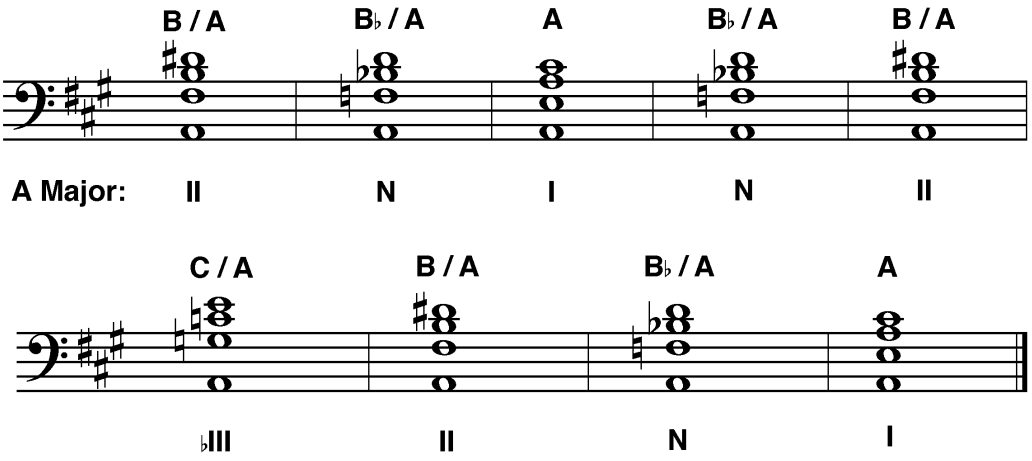
The number one hit song in 1976/77 called "Evergreen", written by Barbra Streisand and Paul Williams used a Neapolitan chord in the final coda. Streisand used the Neapolitan chord three times in the coda. The last Neapolitan can be heard in the third measure to the end serving as the penultimate chord to the final statement of the tonic chord. The Neapolitan functions as a substitute to the ever most popular dominant. Streisand's substitution is really no different than Debussy's exploration when he used numerous substitutions as an alternative to the dominant resolving to the tonic at cadences during the late Romantic and Impressionistic periods.

"Evergreen" is in the key of A major, and the Neapolitan heard three times in the coda is found as an arpeggiated second inversion B flat major triad with an additional A pedal point. The tonic A pedal point is ever present throughout the entire coda section while the chromatic harmonies descend from B major to B flat major and finally to A major before they chromatically ascend the same way they descended. When the chromatic harmonies progress in reverse order in an ascending motion from A major, B flat major, B major, and finally up to C major as the song reaches its pinnacle destination harmonically, it then descends down chromatically again to its final cadence on A.

Although Streisand does not use the Neapolitan in a traditional manner as a preparation for the tonic six-four chord or dominant at a cadence, she ingeniously uses it as a chromatic passing chord. Streisand first uses the B flat Neapolitan triad in a descending motion to the tonic A major triad before chromatically progressing in an ascending motion to B major. The Neapolitan is used as an upper and lower leading-tone harmony to both A major and B major triads. At the final cadence, you hear the B flat major Neapolitan as the penultimate chord to the tonic triad A major to conclude the song. This song is a great example how the Neapolitan is used as a substitute for the dominant triad preceding its tonic.

A harmonic reduction of the chromatic passing harmonies and pedal point, including the Neapolitan, in the last 12 bars of "Evergreen".

Example 1:



WORKBOOK

Chapter 21:
The Neapolitan Sixth Chord: Important Facts

The Neapolitan Sixth chord: Important facts

1. Before the 18th century, when the Neapolitan Sixth Chord was used, it was often in first inversion. In the bass part, the third of the Neapolitan is the fourth degree of the scale; therefore, alluding to the subdominant of the diatonic scale.

2. Due to the importance of melodic part writing with most composers, the third of the Neapolitan Sixth Chord is doubled in order to avoid parallel octaves.

3. The Neapolitan Sixth Chord precedes the dominant, dominant seventh chord, or tonic six-four chord at a cadence. Like the augmented sixth chords, the Neapolitan Sixth is also a predominant sonority.

4. Due to melodic part writing, the Neapolitan Sixth chord often included a chromatic passing tone from its root to the third of the dominant creating briefly a subdominant chord between the two chords. The chromatic passing tone allowed composers to avoid the awkward diminished third between the root of the Neapolitan and the third of the dominant.

5. After the 18th and 19th centuries, the Neapolitan Sixth Chord became more flexible in its position. Composers began to use it in root position and sometimes even in second inversion in addition to its popular first inversion.

6. When the Neapolitan Sixth chord is in root position, the root should be doubled, as it is with other root position major and minor chords.

7. When the Neapolitan Sixth chord is progressing to a Tonic Six-Four chord, it is very easy to create parallel fifths when the root and fifth of the Neapolitan Sixth is written as a perfect fifth above its third in the bass. In other words, avoid writing a Neapolitan Sixth with its root a perfect fifth below its fifth. The best results are achieved when you invert the perfect fifths as perfect fourths, because parallel fourths are acceptable as long as they are harmonized a third below it. In other words, the root of the Neapolitan should be in the upper voice, while the fifth is a perfect fourth below it. This scenario will avoid parallel fifths.

8. As mentioned earlier, the Neapolitan Sixth prefers to resolve mainly to the dominant, dominant seventh, or tonic six-four chord. However, the Neapolitan Sixth can also resolve quite smoothly to the $vii^{0}7/V$ prior to the dominant.

WORKBOOK

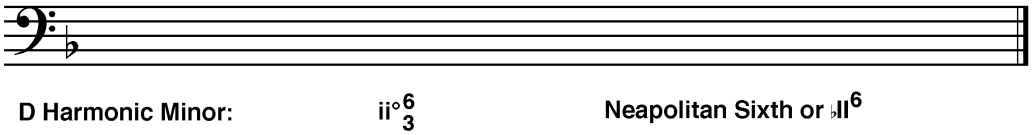
Chapter 22:
The Neapolitan Sixth Chord: Exercises

Creating your own Neapolitan Sixth chords in various keys

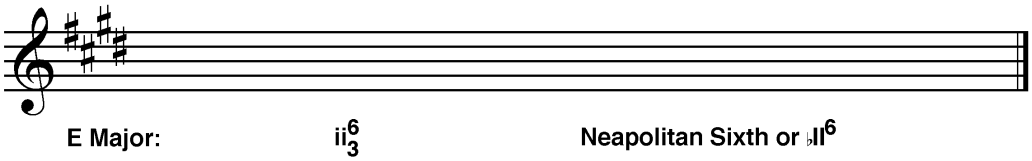
Please create below a first inversion supertonic triad in the given key and then alter it chromatically, transforming it to a Neapolitan Sixth.

Exercise 1:

Exercise 2:



Exercise 3:

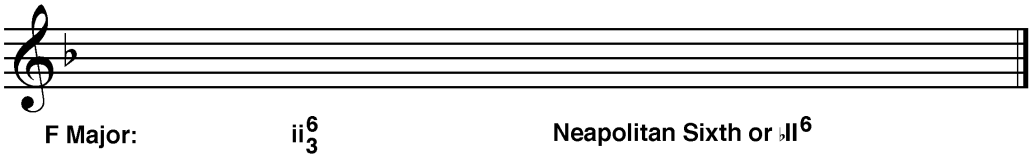


Exercise 4:

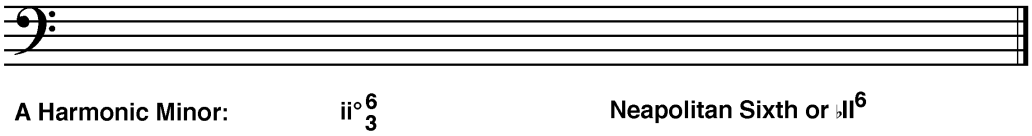
Chapter 22: The Neapolitan Sixth Chord: Exercises (continued)

Please create below a first inversion supertonic triad in the given key and alter it chromatically, transforming it to a Neapolitan Sixth (continued).

Exercise 5:

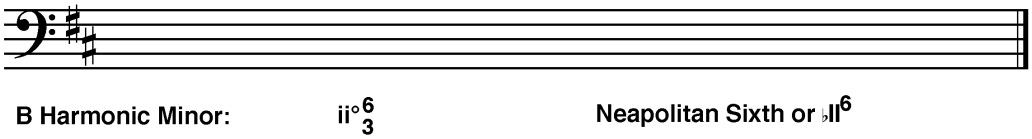


Exercise 6:



Exercise 7:

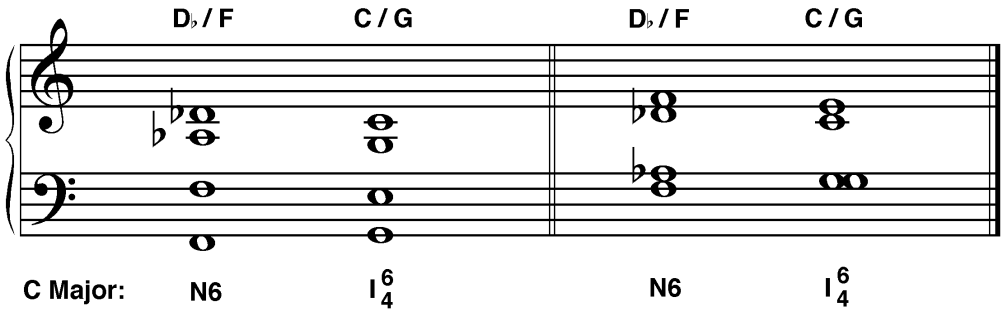
Exercise 8:



Resolution of a Neapolitan Sixth chord to a tonic six-four chord

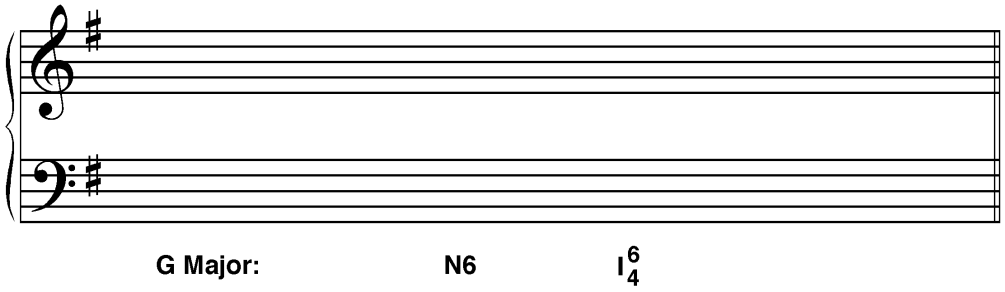
Regardless of the musical period, melodic part writing has always played a major role in the Neapolitan Sixth's resolution, especially during the contrapuntal era of the late Renaissance and Baroque periods. Therefore, the third of the Neapolitan was often doubled in order to avoid parallel octaves in its resolution to the dominant or tonic six-four chord.

Two Examples:

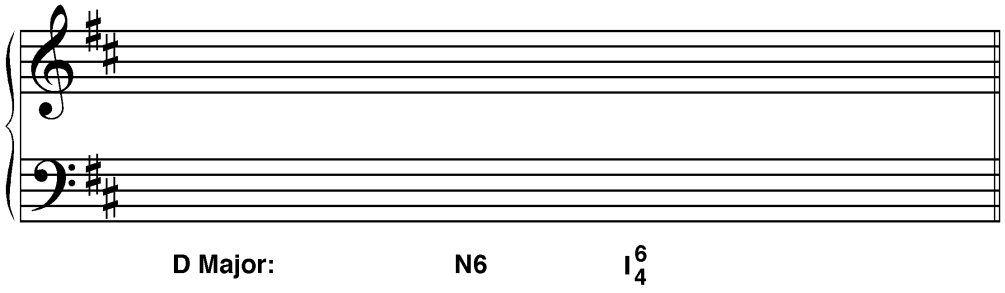


Exercises creating and resolving your own four-part Neapolitan Sixth chord to a tonic six-four chord

Exercise 1:



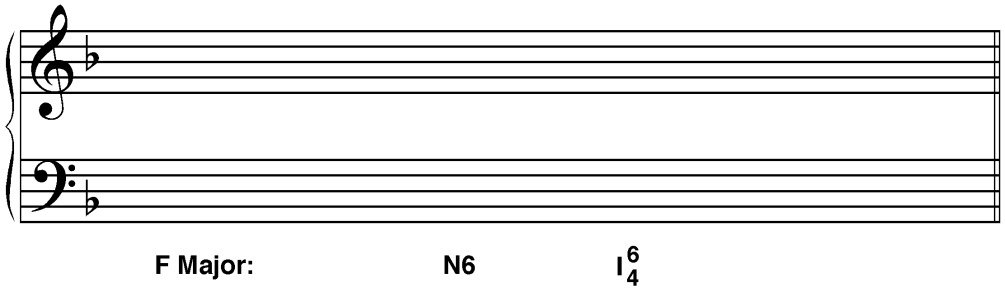
Exercise 2:



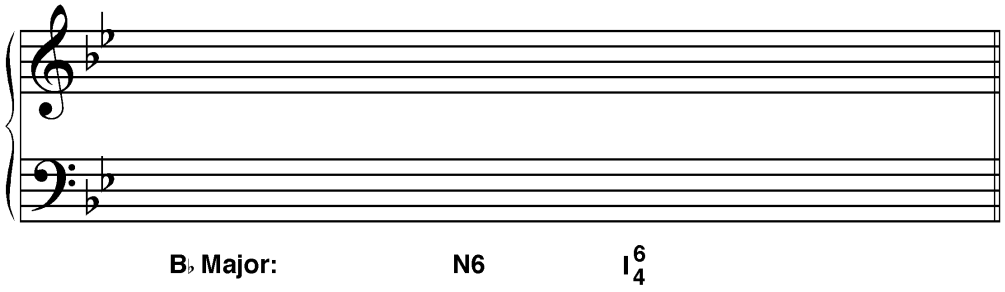
Chapter 22: The Neapolitan Sixth Chord: Exercises (continued)

Exercises creating and resolving your own four-part Neapolitan Sixth chord to a tonic six-four chord (continued).

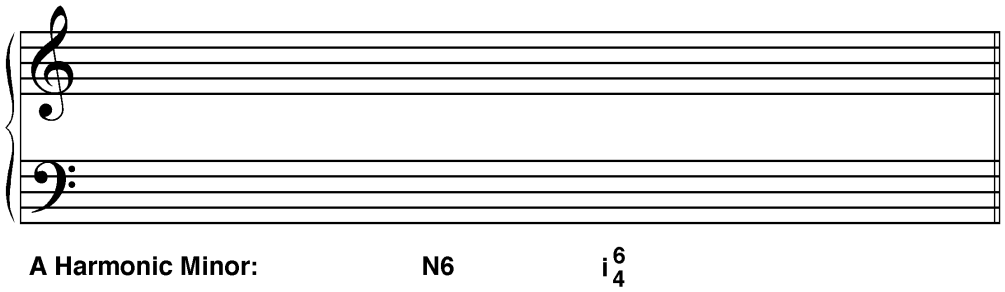
Exercise 3:



Exercise 4:



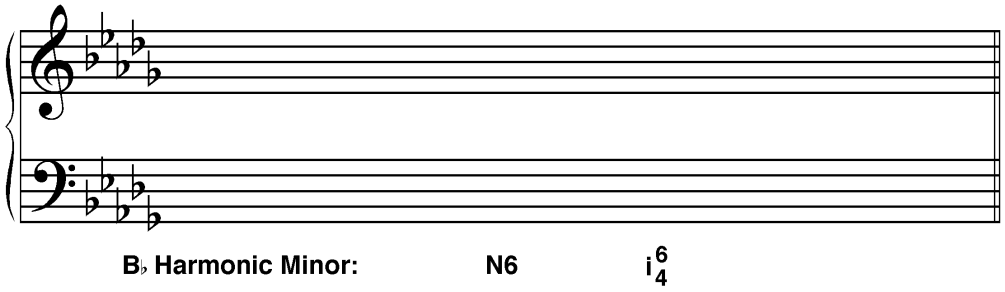
Exercise 5:



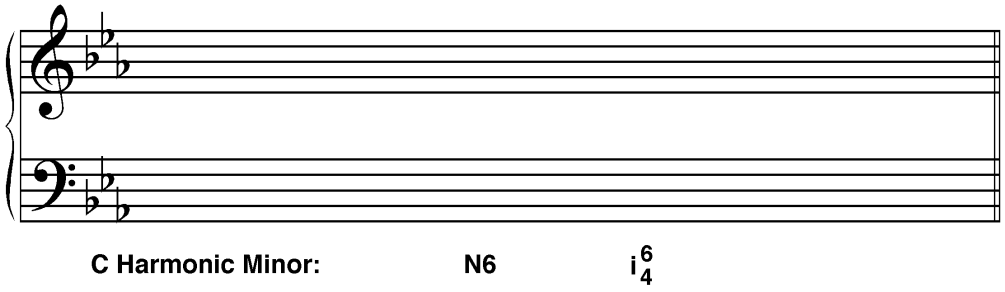
Chapter 22: The Neapolitan Sixth Chord: Exercises
(continued)

Exercises creating and resolving your own four-part Neapolitan Sixth chord to a tonic six-four chord (continued).

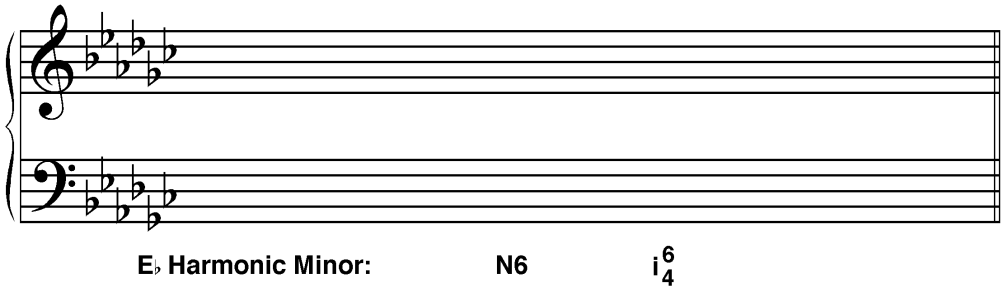
Exercise 6:



Exercise 7:

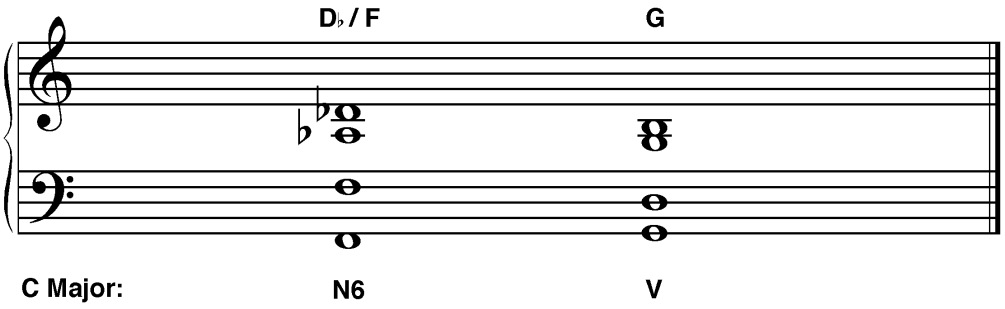


Exercise 8:



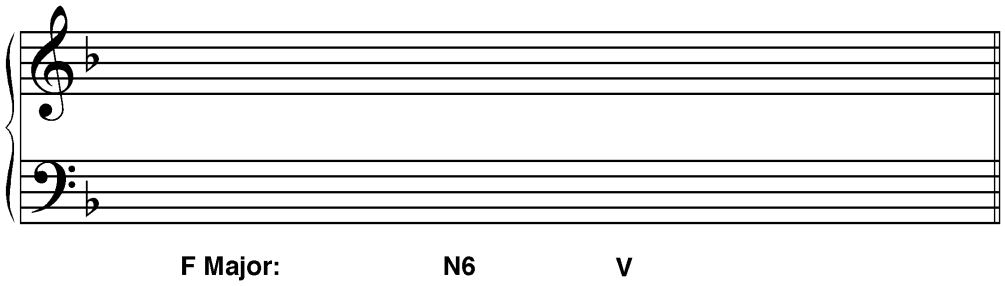
Resolution of a Neapolitan Sixth chord to a dominant triad

Example:

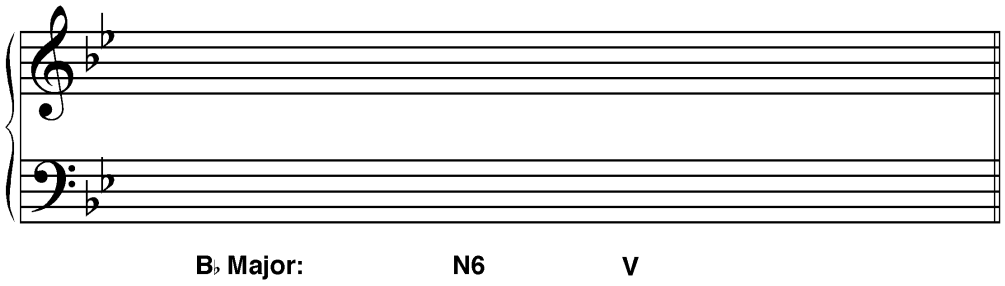


Exercises creating and resolving your own four-part Neapolitan Sixth chord to a dominant triad

Exercise 1:



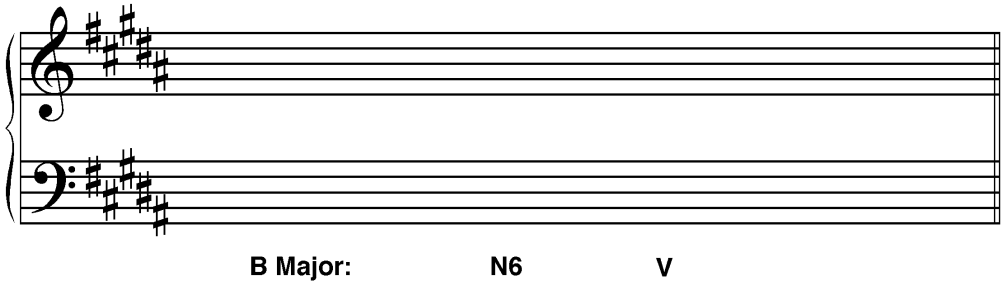
Exercise 2:



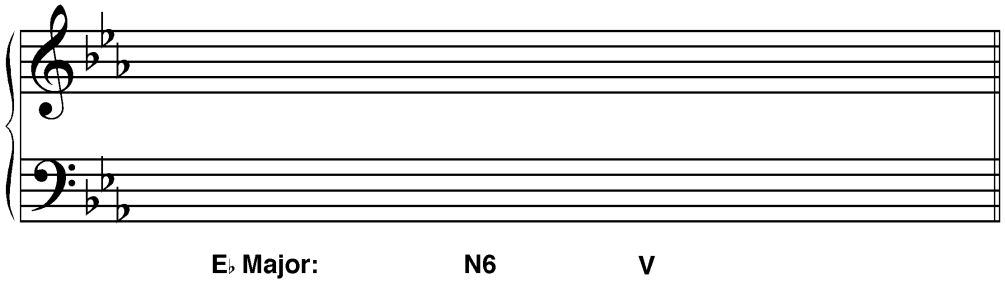
Chapter 22: The Neapolitan Sixth Chord: Exercises
(continued)

Exercises creating and resolving your own four-part Neapolitan Sixth chord to a dominant triad (continued).

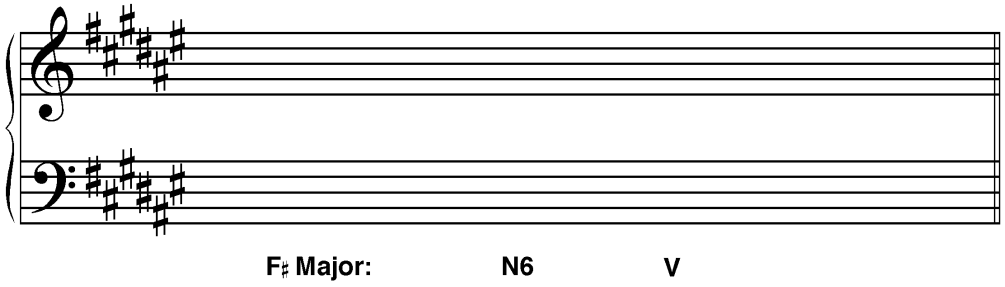
Exercise 3:



Exercise 4:



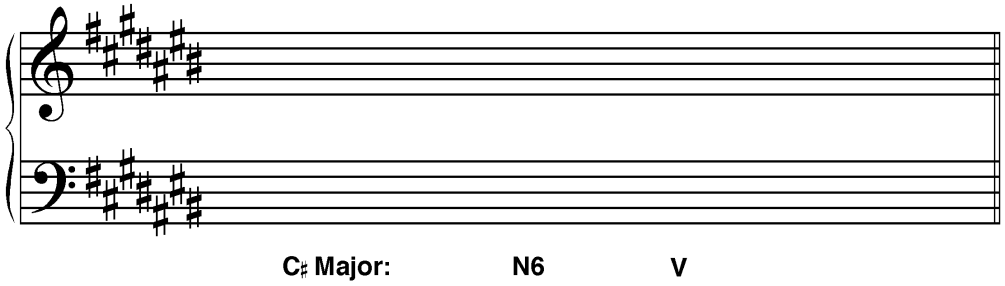
Exercise 5:



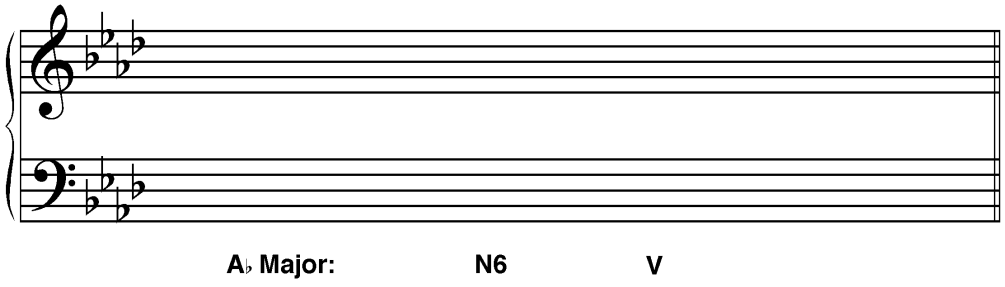
Chapter 22: The Neapolitan Sixth Chord: Exercises
(continued)

Exercises creating and resolving your own four-part Neapolitan Sixth chord to a dominant triad (continued).

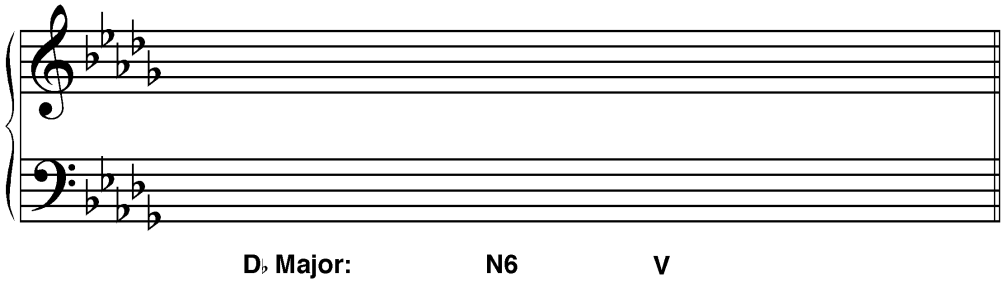
Exercise 6:



Exercise 7:

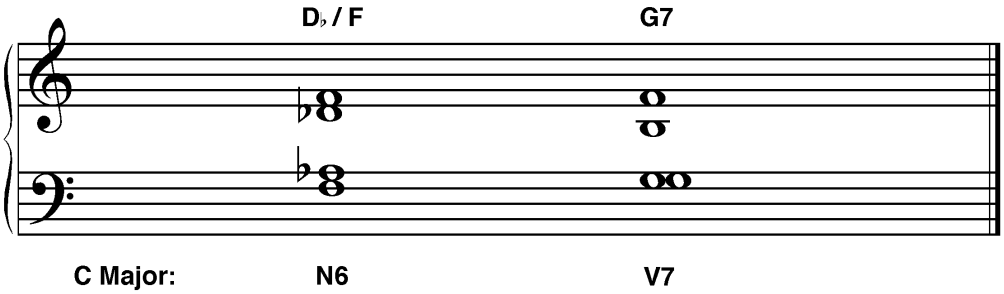


Exercise 8:



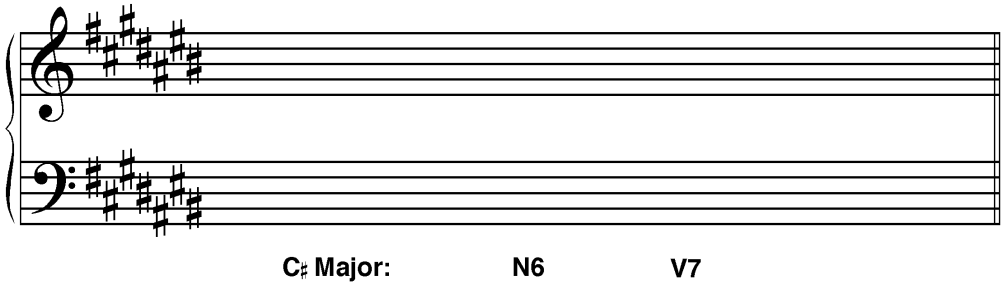
Resolution of a Neapolitan Sixth chord to a dominant seventh chord

Example:

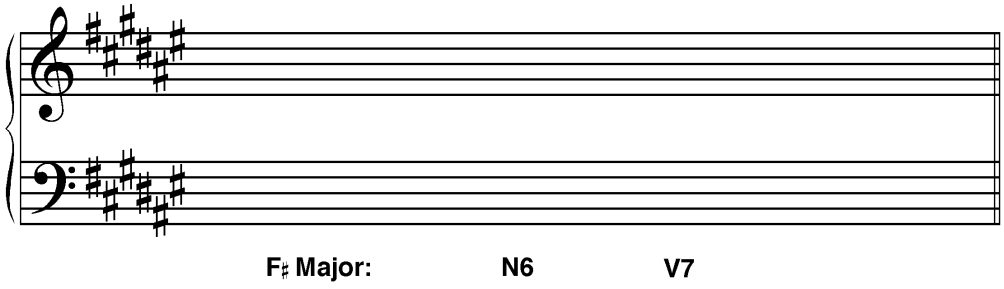


Exercises creating and resolving your own four-part Neapolitan Sixth chord to a dominant seventh chord

Exercise 1:



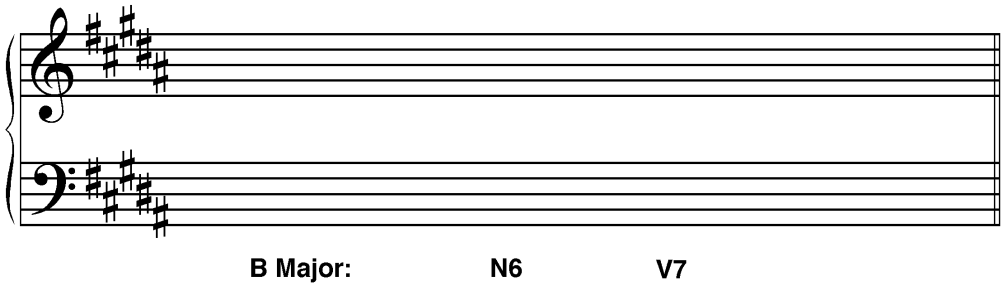
Exercise 2:



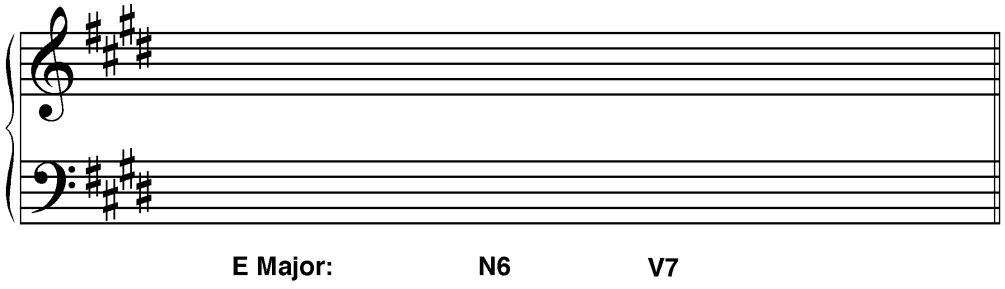
Chapter 22: The Neapolitan Sixth Chord: Exercises
(continued)

Exercises creating and resolving your own four-part Neapolitan Sixth chord to a dominant seventh chord (continued).

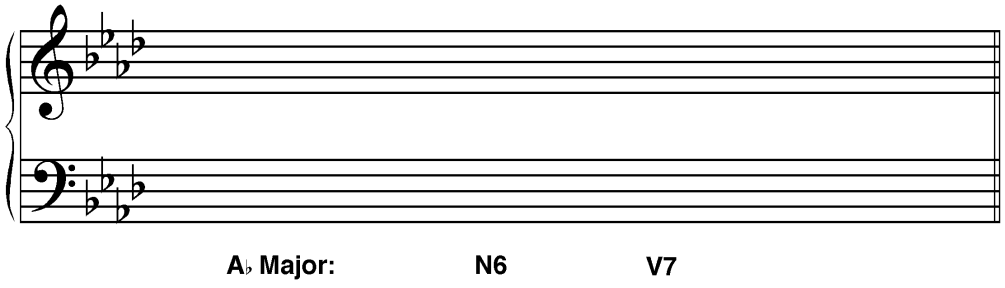
Exercise 3:



Exercise 4:



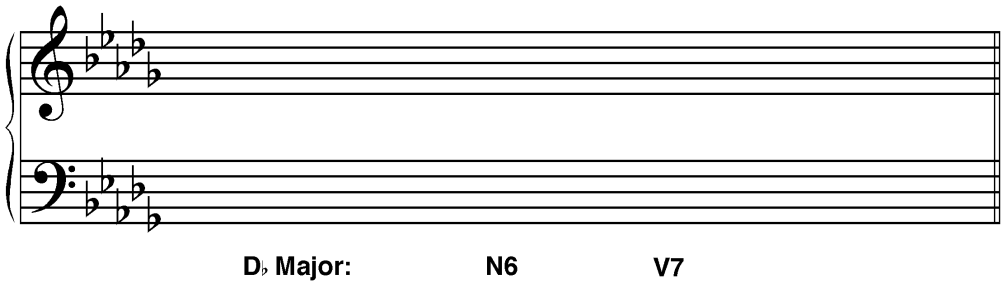
Exercise 5:



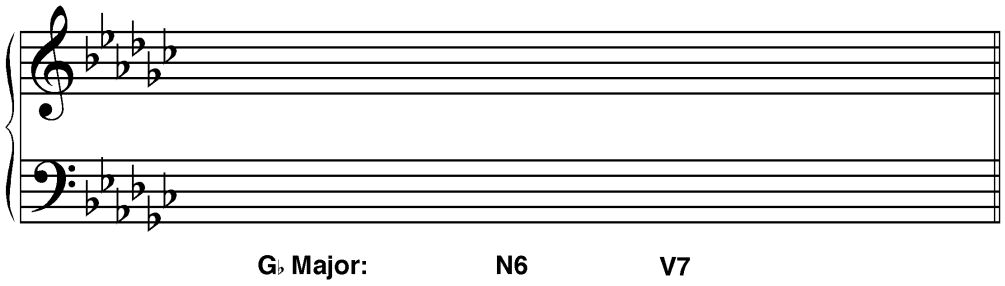
Chapter 22: The Neapolitan Sixth Chord: Exercises
(continued)

Exercises creating and resolving your own four-part Neapolitan Sixth chord to a dominant seventh chord (continued).

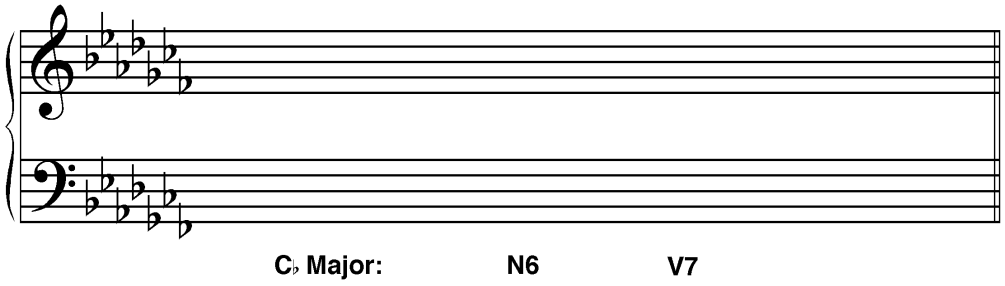
Exercise 6:



Exercise 7:



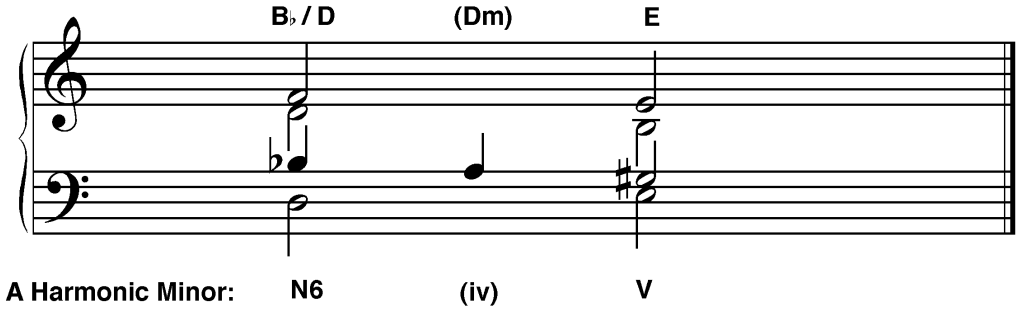
Exercise 8:



An example of a Neapolitan Sixth chord with a chromatic passing tone resolving to a dominant triad

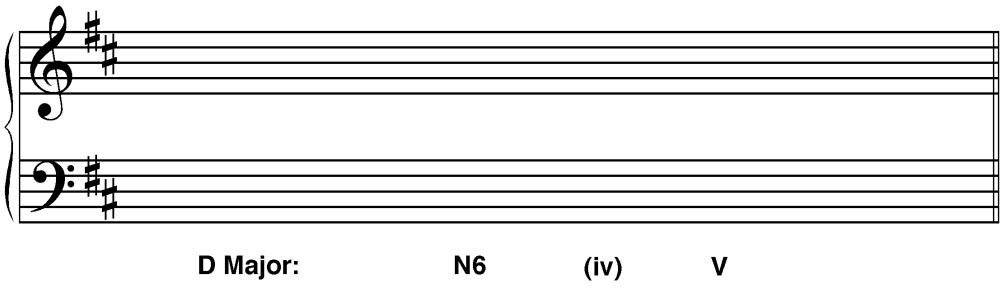
Due to melodic part writing, the Neapolitan Sixth Chord often will include a chromatic passing tone from the Neapolitan's root to the third of the dominant. The chromatic passing tone creates briefly a minor subdominant chord between the two chords. The chromatic passing tone allowed composers to avoid the awkward diminished third between the root of the Neapolitan and the third of the dominant.

Example:

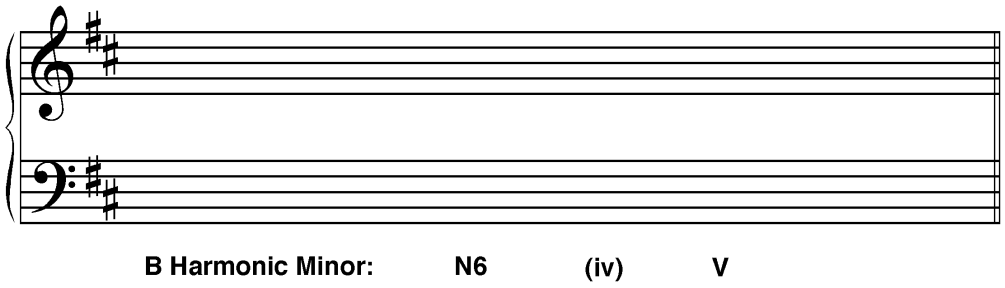


Create your own Neapolitan Sixth chord with a chromatic passing tone resolving to a dominant triad

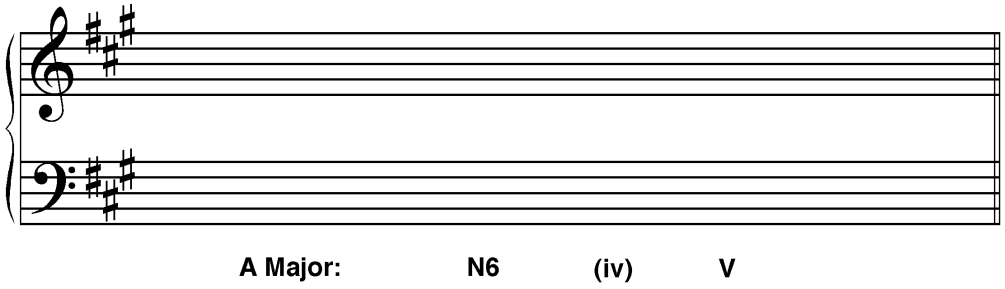
Exercise 1:



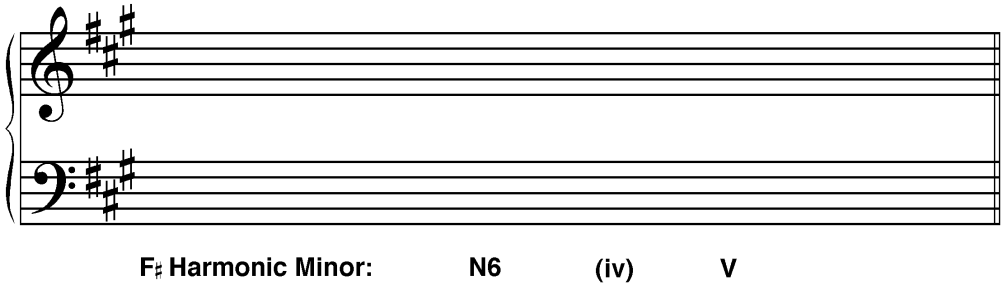
Exercise 2:



Exercise 3:



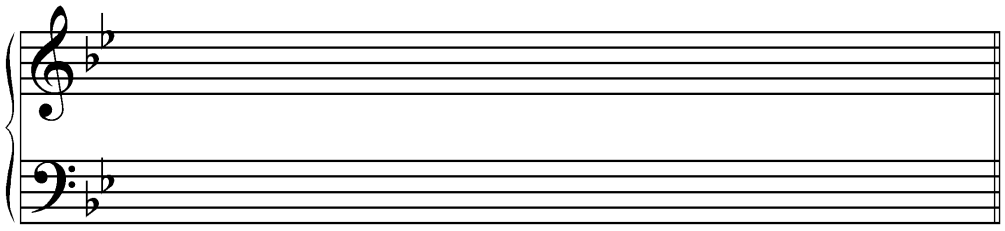
Exercise 4:



Chapter 22: The Neapolitan Sixth Chord: Exercises
(continued)

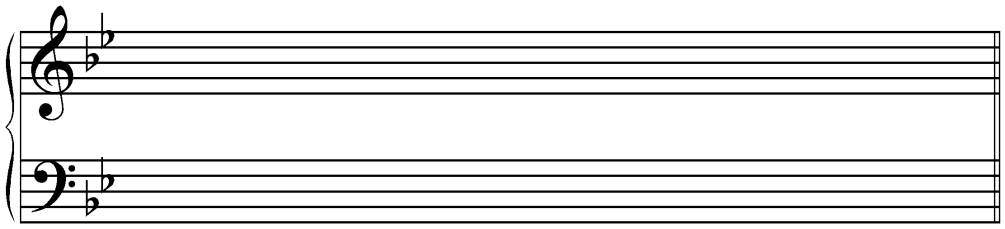
Create your own Neapolitan Sixth chord with a chromatic passing tone resolving to a dominant triad (continued).

Exercise 5:



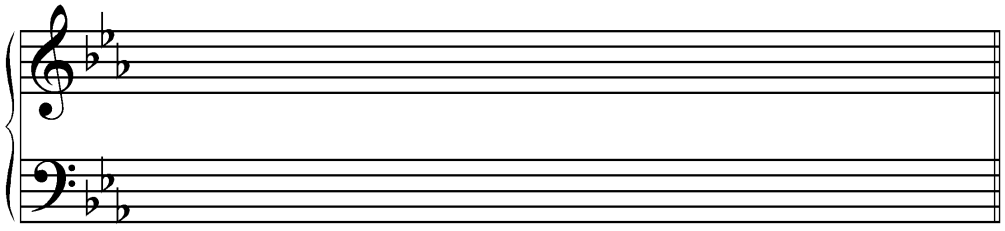
B♭ Major: N6 (iv) V

Exercise 6:



G Harmonic Minor: N6 (iv) V

Exercise 7:

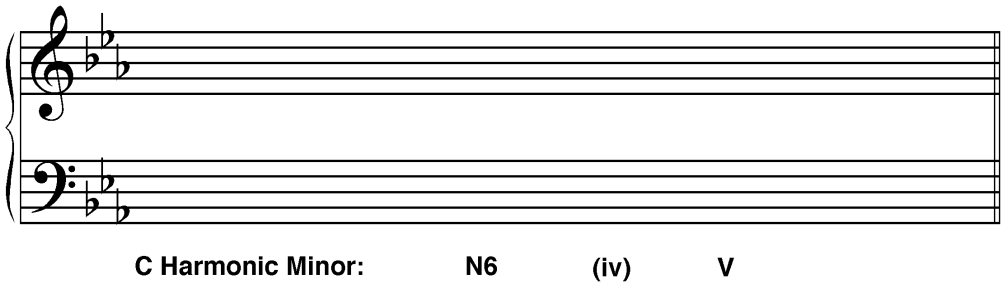


E♭ Major: N6 (iv) V

Chapter 22: The Neapolitan Sixth Chord: Exercises
(continued)

Create your own Neapolitan Sixth chord with a chromatic passing tone resolving to a dominant triad (continued).

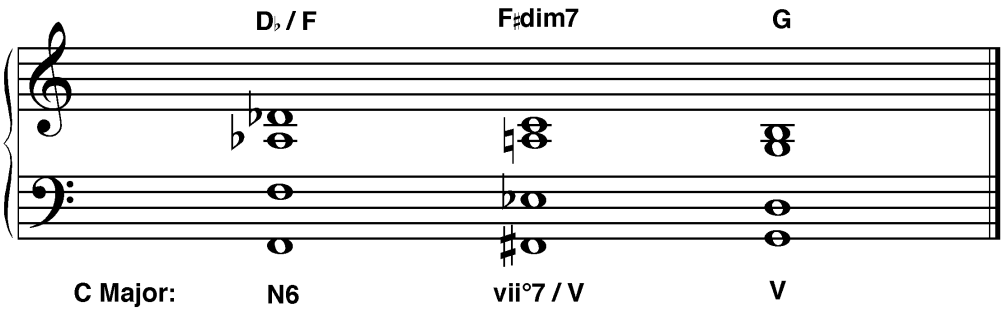
Exercise 8:



<u>An example of a Neapolitan Sixth chord resolving to a secondary full-diminished seventh chord of the dominant as an interruption to the dominant triad</u>

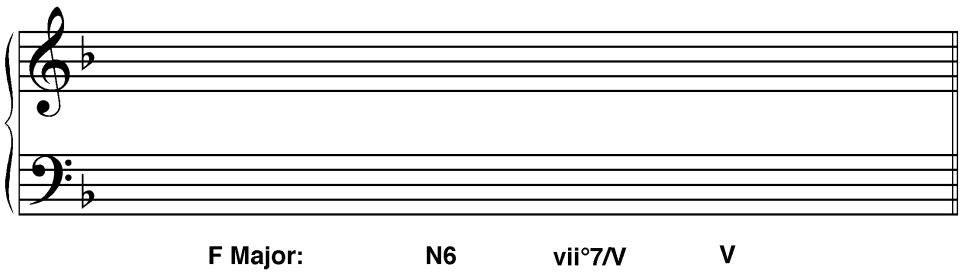
As mentioned earlier, the Neapolitan Sixth prefers to resolve mainly to the dominant, dominant seventh, or tonic six-four chord. However, the Neapolitan Sixth can also resolve quite smoothly to a secondary $vii^{0}7/V$ prior to the arrival of the dominant of the key.

Example:

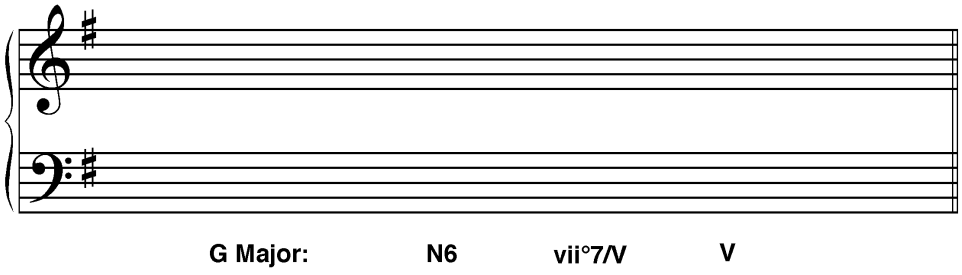


Create your own Neapolitan Sixth chord resolving to a secondary full-diminished seventh chord of the dominant as an interruption to the dominant triad

Exercise 1:



Exercise 2:

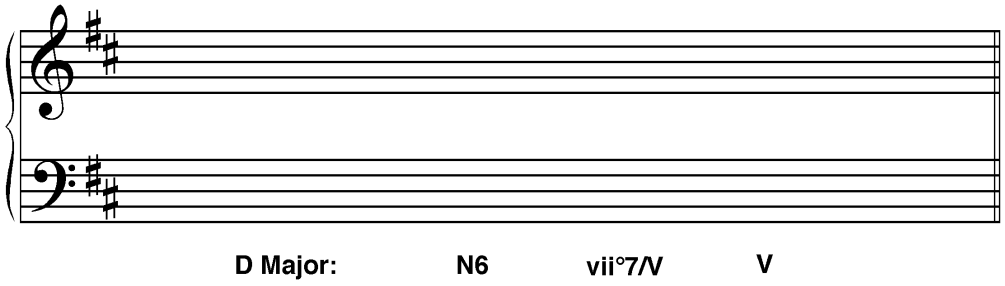


Exercise 3:

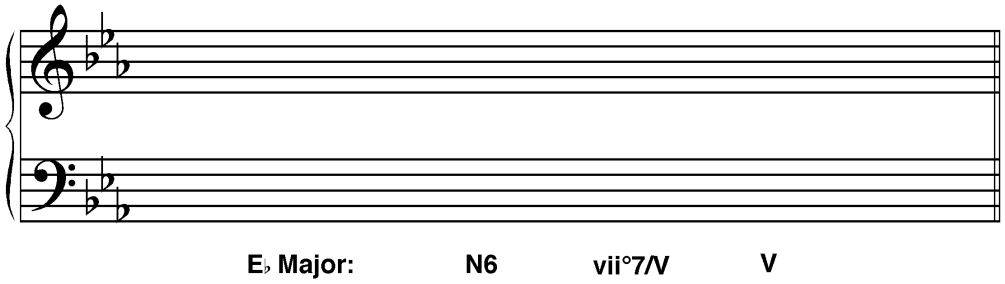
Chapter 22: The Neapolitan Sixth Chord: Exercises
(continued)

Create your own Neapolitan Sixth chord resolving to a secondary full-diminished seventh chord of the dominant as an interruption to the dominant triad (continued).

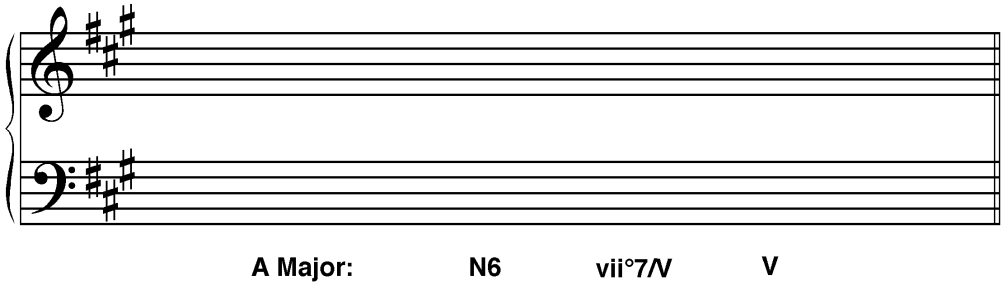
Exercise 4:



Exercise 5:



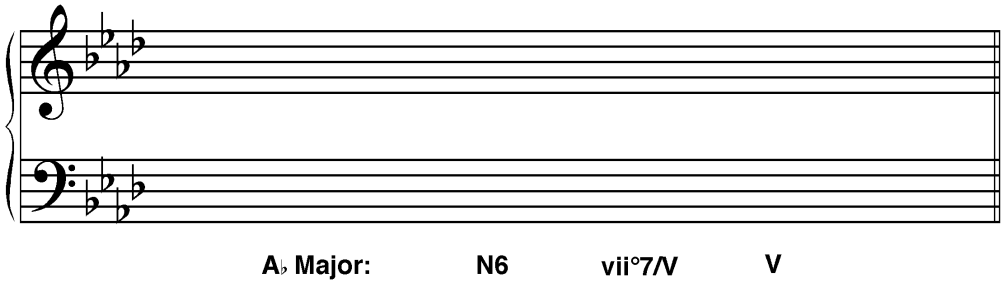
Exercise 6:



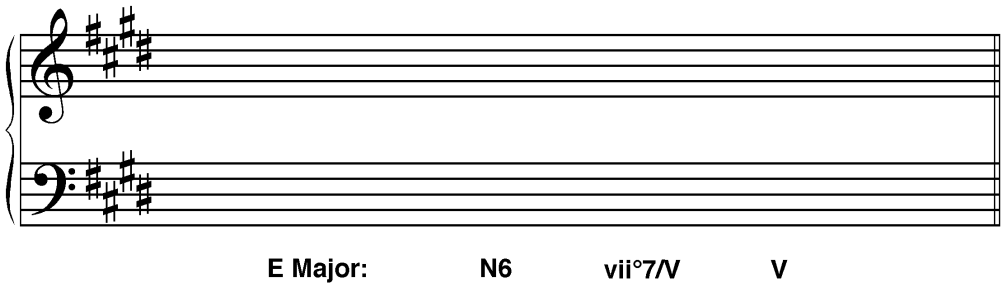
Chapter 22: The Neapolitan Sixth Chord: Exercises
(continued)

Create your own Neapolitan Sixth chord resolving to a secondary full-diminished seventh chord of the dominant as an interruption to the dominant triad (continued).

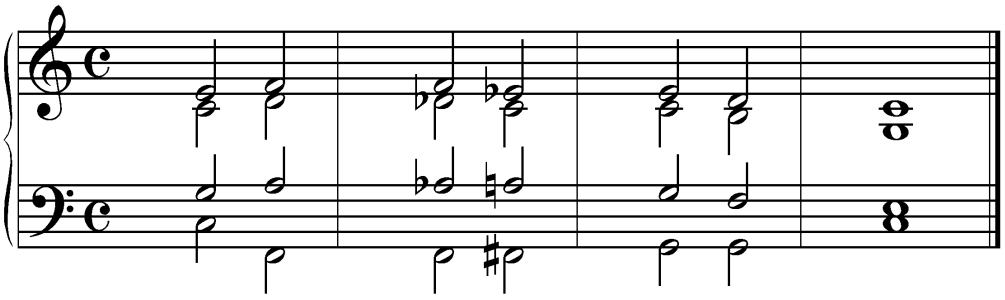
Exercise 7:



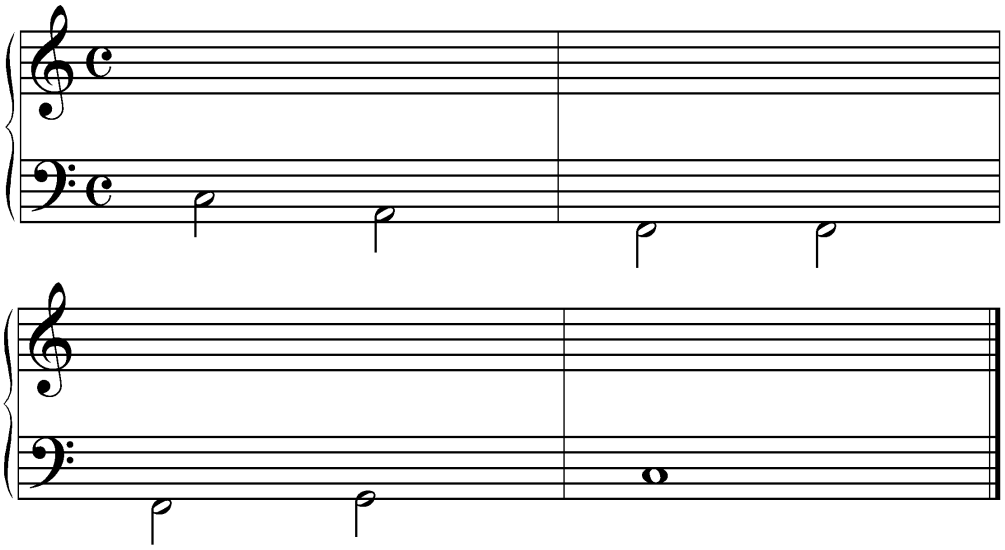
Exercise 8:



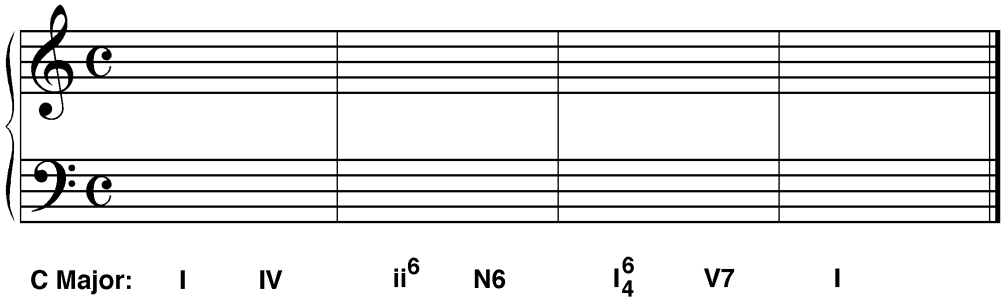
Analyze the four measure four-part chorale. Where is the Neapolitan Sixth chord?



Add the tenor, alto, and soprano parts above the given bass line creating a four measure four-part chorale, which must include a Neapolitan Sixth chord at the cadence



Create a four-part chorale based on the Roman numerals below, including a Neapolitan Sixth chord at the cadence



WORKBOOK

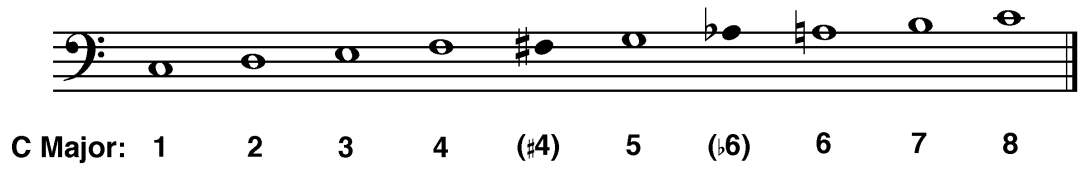
Chapter 23:
The Italian, German, French, and Swiss Augmented Sixth Chords: A Traditional Perspective

Augmented sixth chords: An overview

In the following chapters, we will be discussing the augmented sixth chords, often identified with national names such as the Italian, German, French, and Swiss. As with the Neapolitan Sixth chord, we do not know exactly when or where these augmented sixth chords developed. We do know, however, that the national titles play no significant role in their place of origin or development. Nevertheless, the name of these chords became part of our musical nomenclature as a family of chords. Each augmented sixth chord plays a similar role by way of strongly announcing the arrival of a cadence through its smooth chromatic resolution to the dominant or tonic six-four chord, which in turn will emphatically reinforce and support the home key.

The incipient of the augmented sixth chords came from the use of two borrowed chromatic tones outside of the diatonic major scale. The two frequently used chromatic tones were the raised fourth degree and the lowered sixth degree of the major scale.

Example: A C major scale including the raised fourth and lowered sixth degrees.



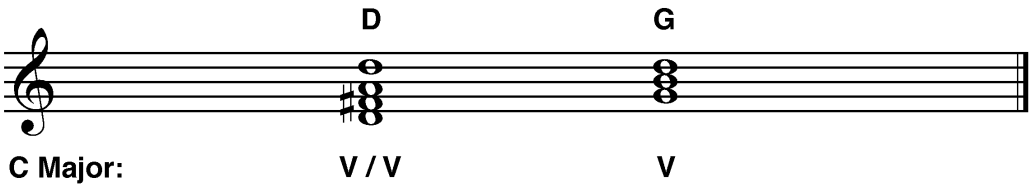
Historically, these two chromatically altered tones used in the diatonic major scale were possibly first employed separately in polyphonic textures as chromatic passing tones to the dominant degree of the scale. The raised fourth and lowered sixth degrees would later be employed to alter the supertonic and subdominant triads, respectively, in a diatonic major scale. It was inevitable that the amalgamation of these two prominent chromatic altered tones, respectively, the raised fourth and lowered sixth degrees were incorporated together in a contrapuntal texture, creating an augmented sixth interval. We can speculate that later these two chromatically altered tones were used as the foundation of the augmented sixth chords when combined with one or two additional tones.

Initially theorists labeled the first three augmented sixths as the Italian, German, and French. Later, a name for the fourth augmented sixth chord was added, and it was called the Swiss Augmented Sixth chord. Initially, the Swiss Augmented Sixth was formerly known as the doubly augmented fourth chord (an enharmonic equivalent of the German Augmented Sixth). Despite the similarities between the German and Swiss, theorists arbitrarily gave the doubly augmented fourth chord its own national name as well. Nevertheless, all four augmented sixth chords provided two important functions in composition: 1) a suigeneris sound with a very distinct resolution to the dominant or tonic six-four chord, which would inevitably support its tonic; 2) to smoothly connect unexpected, borrowed chords from other keys to chords from the primary key and/or provide quick modulations to remote keys.

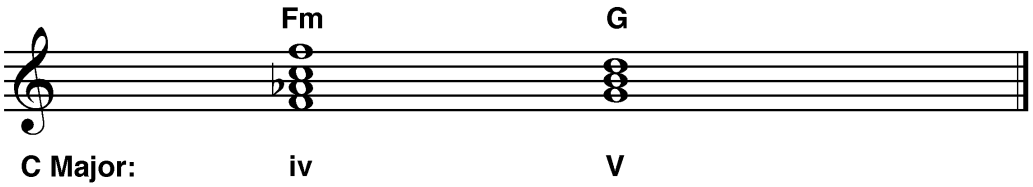
Chapter 23: The Italian, German, French, and Swiss Augmented Sixth Chords: A Traditional Perspective (continued)

The augmented sixth chord's raised fourth and lowered sixth degrees' primary purpose to resolve to the dominant degree, is really no different than the function of a secondary dominant seventh of the dominant or the minor subdominant both resolving chromatically to the dominant of their key. These borrowed chords, the V7/V or iv, both include, respectively, the raised fourth and lowered sixth degrees. The raised fourth degree would function as the major third of the secondary dominant: V/V (an altered supertonic chord with its third chromatically raised), while the lowered sixth degree in a major scale would be the minor third of a minor subdominant. Although the minor subdominant is indigenous of the diatonic minor scale (except the ascending melodic minor), it would often be borrowed in major keys. Individually, the role of these two borrowed chords was to facilitate a smooth chromatic progression by either ascending or descending a semi-tone to the root of the dominant.

Example: V/V resolving to V.



Example: The minor subdominant resolving to the dominant.

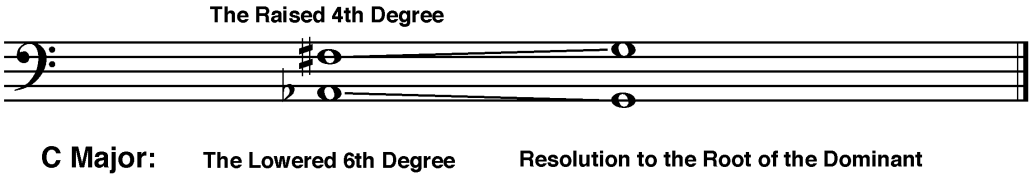


In a diatonic major scale, these two borrowed chords, the secondary dominant of the dominant and the minor subdominant, became common place in the vocabulary of most composers. They were used so often at cadences to emphatically reinforce the tonality, that they no longer seemed unfamiliar to a diatonic major key. This practice using these borrowed chords can be found from the late Renaissance composers to pop artists such as the Beatles, Paul Simon, Elton John, and many others.

Initially, the raised fourth degree (V/V) was separate from the lowered sixth degree (iv) employed in two different harmonies. Although each harmony provided a different harmonic palette, they both were similar by way of an alternative harmonic progression to the dominant through its chromatic voice leading. However, composers also realized that the uniqueness of these two different borrowed harmonies with their raised fourth and lowered sixth degrees could be extracted from each harmony, and instead, be used together in a contrapuntal setting [see J. S. Bach's Minuet in C Minor below].

Hence, the raised fourth degree from the V/V and the lowered sixth degree from the minor subdominant were not used for their individual harmonies, but used together to produce an augmented sixth dyad, which allowed a double resolution in contrary motion to the dominant degree of the scale. For example, in C major the lowered sixth degree is A flat, and the raised fourth degree is F sharp. When the A flat is in the lowest voice and the F sharp is in the highest voice, they both produce an augmented sixth.

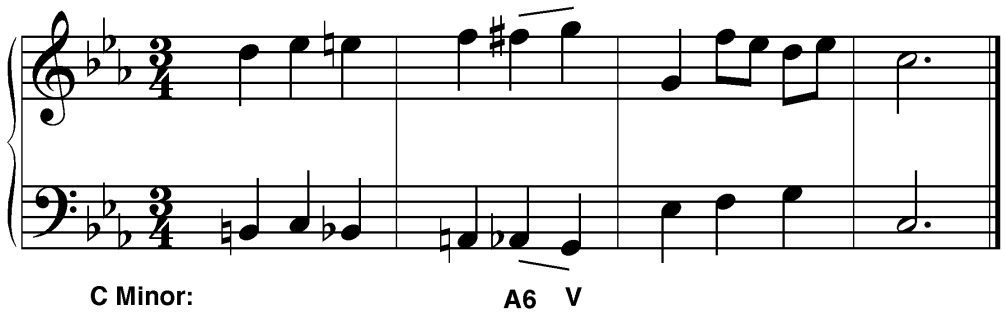
Example: An augmented sixth between A flat and F sharp.



Below is an excerpt from a Bach Minuet that illustrates how the lowered sixth degree and the raised fourth degree used in a contrapuntal texture form a harmonic interval of an augmented sixth, which resolves contrapuntally in contrary motion to the dominant degree at the climax of the piece. This predominantly two-part contrapuntal work by J. S. Bach, the Minuet in C minor, includes an incomplete augmented sixth chord with only the augmented sixth dyad present. In beat 2 of the third measure from the end, the raised fourth degree, F sharp, is in the upper voice while the diatonic sixth degree, A flat (the lowered sixth degree of a major scale and the diatonic sixth degree in minor) is in the lower voice. Both tones resolve chromatically in contrary motion to the octave G natural, the doubled root of the implied dominant triad. The augmented sixth dyad creates a sense of heightened tension at the climax of the work with a feeling of repose with its resolution to the dominant degree.

In Bach's Minuet in C minor, the diatonic sixth degree (A flat) and the raised fourth degree (F sharp) are a great example of how effective and supportive their resolution to the dominant are when combined as an augmented sixth dyad. Bach's choice of an augmented sixth dyad alludes to an incomplete augmented sixth chord, via its two most important tones, the raised fourth and lowered sixth degrees.

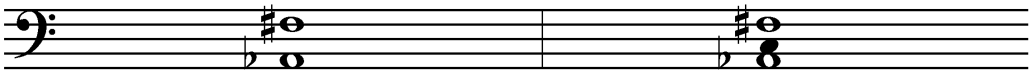
Example: Augmented sixth dyad resolving to a doubled root of the dominant degree from Minuet in C Minor by Johann Sebastian Bach.



The augmented sixth is endemic in all four augmented sixth chords. Each augmented sixth chord also includes the same resolution in contrary motion to the dominant degree, whether or not it is directly to the dominant triad or the tonic six-four chord. The interval of an augmented sixth, common in all four augmented sixth chords, provides a contrapuntal resolution to the dominant degree which conveniently facilitates avoiding parallel octaves. This particular form of resolving to a perfect octave in contrary motion was typical and accepted practice in the 17th and 18th centuries. But even more important, the augmented sixth dyad or augmented sixth chords were also widely accepted due to their primary function as a cadential harmony that provided a strong reinforcement of the tonic key.

Inevitably, composers would take the raised fourth degree (the raised third of the chromatically altered supertonic, creating a secondary dominant) and combined it with the lowered sixth degree (the minor third of the minor subdominant) to create the staple ingredients for all four augmented sixth chords. The birth of the first augmented sixth chord occurred when the tonic note of the scale was added to the augmented sixth interval (the lowered sixth and raised fourth degrees, respectively); the result was an **Italian Augmented Sixth**.

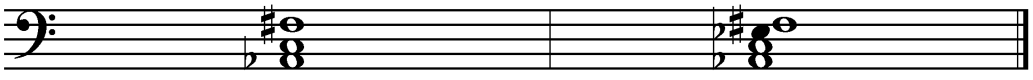
Example: The tonic degree added to an augmented sixth to create an Italian Augmented Sixth chord.



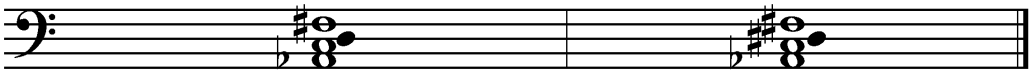
C Major: An Augmented Sixth Dyad Italian Augmented Sixth

The other three augmented sixth chords; the German, Swiss, and French will also include the same three tones of the Italian Augmented Sixth. Since all four augmented sixth chords include these three tones, the chief difference between the Italian Augmented Sixth and the other three augmented sixth chords would be one additional tone. To differentiate between the German, Swiss, and French augmented sixth chords, each one will include one added tone that is uniquely different from one another, creating a unique sound and resolution for each augmented sixth chord.

Example: The dark note below is the chief difference between the four augmented sixth chords.



C Major: Italian Augmented Sixth German Augmented Sixth



C Major: French Augmented Sixth Swiss Augmented Sixth

Chapter 23: The Italian, German, French, and Swiss Augmented Sixth Chords: A Traditional Perspective (continued)

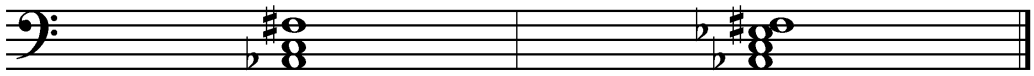
Another common characteristic element for all four augmented sixth chords is that the lowered sixth degree of the scale would often be used in the lowest voice. The raised fourth degree of the scale, however, was commonly placed in any of the upper voices.

The similarities between the Italian and German Augmented Sixth chords are many. Unlike the French and Swiss Augmented Sixths, both the Italian and German Augmented Sixth chords are in first inversion with the raised fourth degree of the scale functioning as the root and the lowered sixth degree as the third. The tonic note of the key functions as the diminished fifth of both augmented sixth chords.

The German Augmented Sixth chord, however, includes a fourth tone. Since the German Augmented Sixth chord is usually in first inversion with the lowered sixth degree (the third of the chord) in the lowest voice, the added tone is a perfect fifth from the bass note. But from its root (the raised fourth degree), the new member is a diminished seventh: e.g., F sharp to E flat.

For example, in the key of C major, the Italian Augmented Sixth chord in first inversion is A flat, C natural, F sharp. When E flat (the diminished seventh from the root) is added as a perfect fifth above the bass tone, A flat (the third of the augmented sixth chord), the Italian Augmented Sixth chord is transformed to a German Augmented Sixth chord, creating a fuller sound due to its four tones. Therefore, the German Augmented Sixth chord is simply a completed Italian Augmented Sixth chord.

Example:



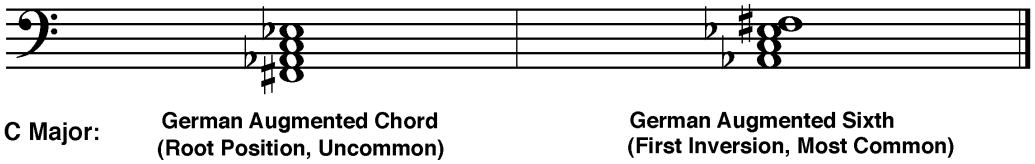
C Major: **Italian Augmented Sixth** **German Augmented Sixth**

In the example above in C major, the A flat in the lowest voice serves as the third of the harmony in both augmented sixth chords. The major third above the A flat in the bass is the tonic note, C natural. The tonic note, C natural, serves as the fifth, a diminished fifth from the root (F sharp) of the chord. The F sharp in the soprano voice (the raised fourth degree of the scale) is an augmented sixth from the bass note, A flat, and serves as the root for both the Italian and German Augmented Sixth chords.

However, as in the example above, the German Augmented Sixth chord includes an additional note, E flat. As discussed, this additional tone is a perfect fifth above the bass note, A flat. The E flat serves as the diminished seventh from the augmented sixth chord's root, F sharp. Hence, the primary difference between these two augmented sixth chords is that the Italian includes three tones and the German has four tones, three of those tones (the root F sharp, the third A flat, and the fifth C natural) are shared between them.

The example below demonstrates the German Augmented Sixth chord in root position (extremely uncommon) and in its most common position, first inversion. As you can see, the rarely used root position of the German Augmented chord is spelled on all spaces, which substantiates the root of the chord based on the system of tertian harmony. The F sharp is the root, while the remaining notes above the root are A flat, C natural, and E flat. The A flat serves as the diminished third, the tonic tone of the key C natural as a diminished fifth, and the E flat as a diminished seventh.

Example:

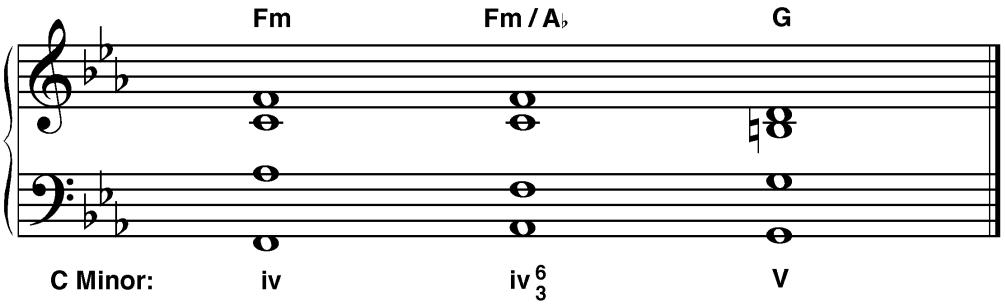


Chapter 23: The Italian, German, French, and Swiss Augmented Sixth Chords: A Traditional Perspective (continued)

The Italian and German Augmented Sixth chords both include roots based on the raised fourth degree of the scale. Many theorists consider and analyze both augmented sixth chords as altered subdominant chords, although they function more as pre-dominant sonorities, such as secondary dominants [see Chapter 30].

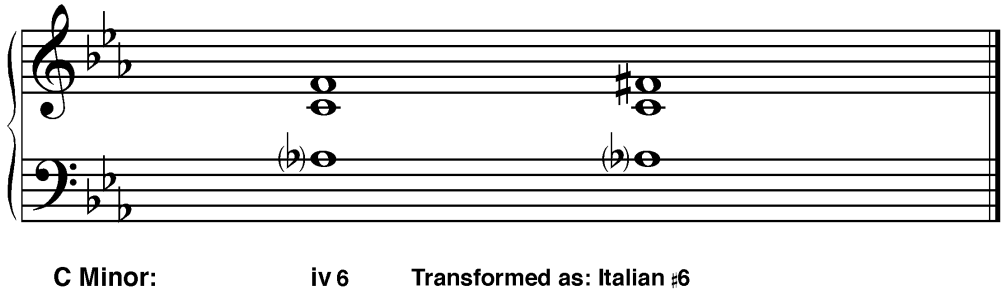
The following two examples below illustrate in **C minor** how closely related the minor subdominant triad is to the Italian Augmented Sixth chord in function and resolution. The minor subdominant in first inversion resolves smoothly to the major dominant in the harmonic minor scale.

Example:



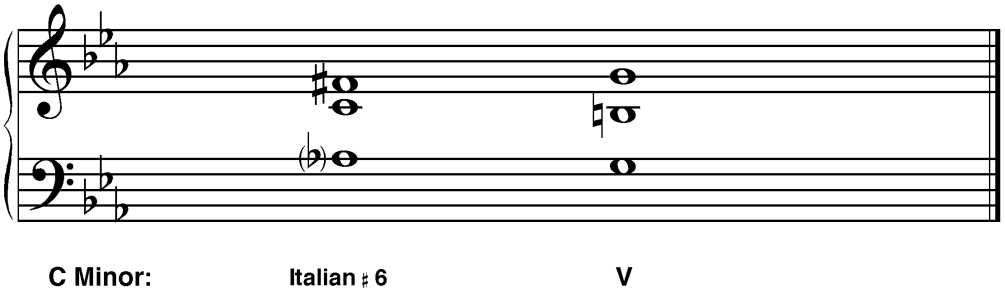
The example below demonstrates how you can chromatically alter the minor subdominant by raising its root F natural one half step to F sharp (the raised fourth degree). With the other two tones remaining the same along with the chromatically altered root, an Italian Augmented Sixth chord is formed.

Example:



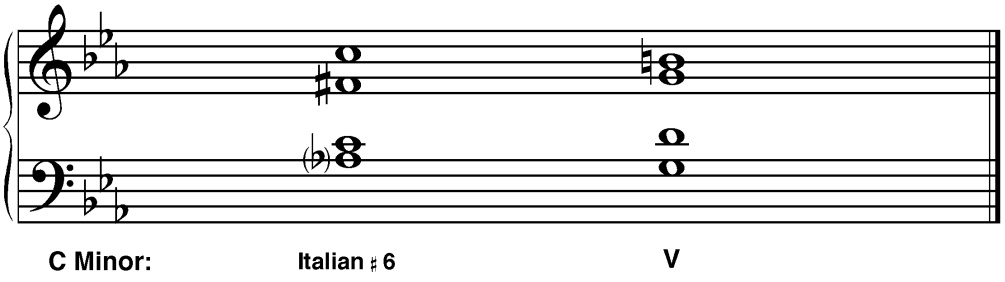
Also, the function and resolution of the Italian Augmented Sixth is the same as the minor subdominant, progressing to its dominant of the key. With the chromatically raised root of a minor subdominant to create an Italian Augmented Sixth chord only strengthens its resolution to the root of the dominant by creating a second leading tone. The chromatic alteration creates an augmented sixth, A flat to F sharp; its tendency is to resolve chromatically in contrary motion to a doubled root of the dominant.

Example: Resolution of the Italian Augmented Sixth chord.



When the Italian Augmented Sixth is used in four-parts, the tonic note (the diminished fifth of the chord) is usually doubled. The doubled tonic note resolves in the opposite direction of each other when resolving to the dominant. One tonic note resolves upward to the fifth while the other one resolves downward to the third of the dominant. The resolution of the augmented sixth of the Italian Augmented Sixth remains the same.

Example: Resolution of the Italian Augmented Sixth chord in four-parts.

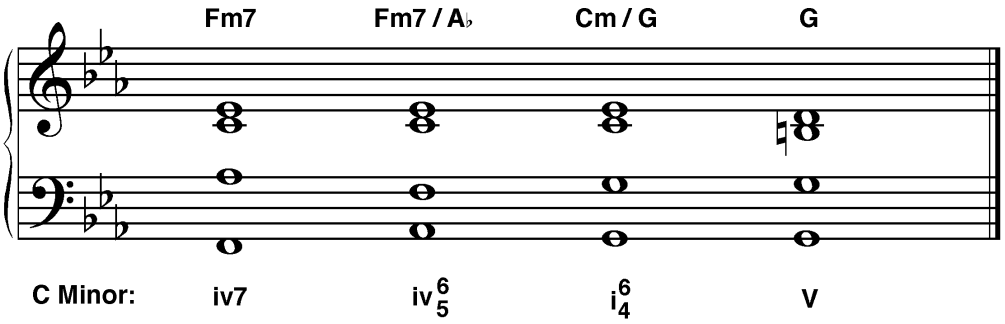


German Augmented Sixth

As with the Italian Augmented Sixth chord, the German Augmented Sixth chord also includes a root based on the raised fourth scale degree.

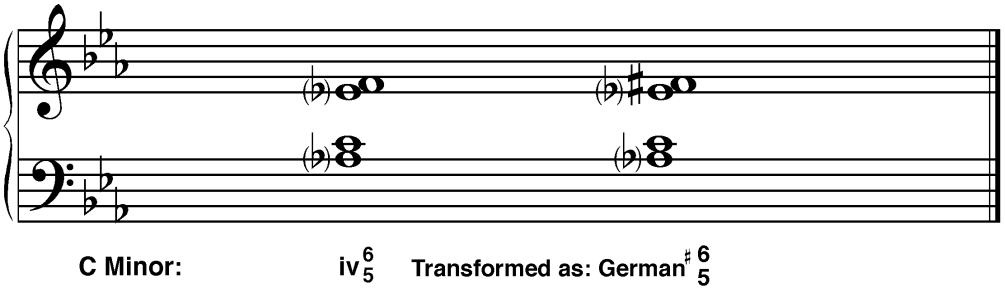
The following two examples below illustrate in **C minor** how closely related the minor subdominant as a minor seventh chord is to a German Augmented Sixth chord in function and resolution. The example below demonstrates how the minor subdominant as a minor seventh chord in first inversion resolves smoothly to its tonic six-four chord before progressing to its major dominant in the harmonic minor scale.

Example:



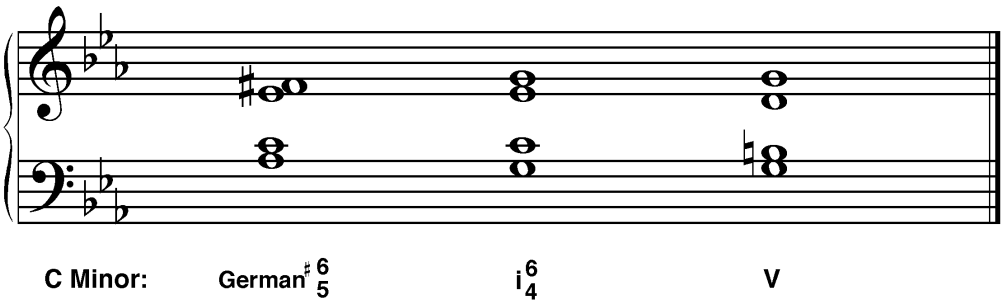
As with the Italian Augmented Sixth chord, the German Augmented Sixth chord is easily formed by raising the root F natural of the subdominant's minor seventh chord one half step to F sharp. The other three tones of the subdominant minor seventh chord remain the same and with its new chromatically altered root, F sharp, forms a German Augmented Sixth chord.

Example:



Also, the function and resolution of the German Augmented Sixth is similar to the subdominant minor seventh chord, smoothly progressing to a tonic six-four chord before resolving to its dominant of the key. By raising the root of the subdominant's chord not only creates a German Augmented Sixth, but strengthens its resolution to the tonic six-four chord. The strength of the German Augmented Sixth chord's resolution to the tonic six-four chord derives from its two leading tones that resolve chromatically in contrary motion to a doubled fifth [see example below].

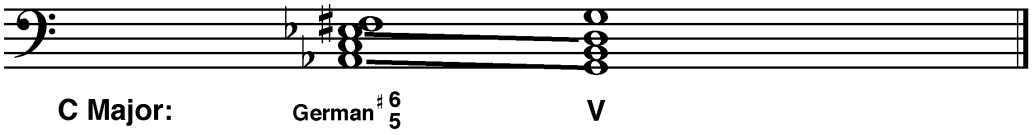
Example: Resolution of a German Augmented Sixth chord.



Therefore, the function of the Italian and German Augmented Sixth chords is to provide support to the tonic key, regardless if the key is major or minor. However, as we have viewed in the prior examples, the two augmented sixth chords have different resolutions. The Italian Augmented Sixth chord's primary resolution is to progress directly to the dominant, while the German Augmented Sixth chord resolves to the minor (and sometimes major) tonic six-four chord [see Swiss Augmented Sixth Chord].

Although most composers maintained appropriate part writing by resolving the German Augmented Sixth chord to a tonic six-four chord to avoid the forbidden parallel fifths, some composers overlooked such protocol. The example below written in four parts illustrates a German Augmented Sixth chord resolving directly to a dominant, which inevitably creates parallel fifths.

Example: German Augmented Sixth resolving to a dominant, creating parallel fifths.



However, due to other musical circumstances and considerations, some composers, despite their aversion to parallel fifths, would resolve a German Augmented Sixth chord to a dominant with special attention in disguising the parallel fifths.

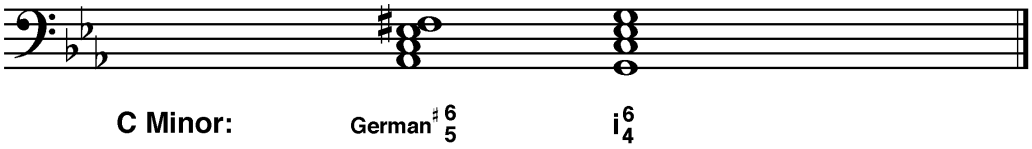
Some shrewd musical solutions composers have applied to make the parallel fifths less obvious when progressing to a dominant from a German Augmented Sixth chord are: 1) Placing the parallel fifths between the bass and an inner voice, such as the alto or tenor voice, to avoid at all cost parallel fifths in the most outer voices, the bass and soprano. 2) Including a nonharmonic tone, such as an appoggiatura, retardation, or suspension to divert the listener's attention of the simultaneous movement of parallel fifths. 3) Resolving the perfect fifth of the German Augmented Sixth to a dominant without a fifth, by tripling the root of the dominant. 4) Although uncommon, resolving the German Augmented Sixth to a dominant seventh chord without its fifth. 5) Hiding the parallel fifths with an accompanimental configuration, such as an Alberti bass pattern, places a different harmonic chord tone between the perfect fifths of the German Augmented Sixth and dominant. 6) The most common procedure prior to the German Augmented Sixth's resolution, is to substitute it with an Italian Augmented Sixth chord. By melodically removing the tone a perfect fifth above the German Augmented Sixth's bass note to a tone that is a third above its bass, will result in an Italian Augmented Sixth chord. Composers who insist on resolving a German Augmented Sixth chord directly to a dominant most frequently use this last procedure.

Chapter 23: The Italian, German, French, and Swiss Augmented Sixth Chords: A Traditional Perspective (continued)

As we mentioned earlier, the most accepted procedure in resolving a German Augmented Sixth chord is to its tonic six-four chord that avoids parallel fifths. Although some composers resolve the German Augmented Sixth chord to a tonic six-four chord in either major or minor keys with no reservations, it is often preferred to have the German Augmented Sixth chord resolve to a tonic six-four chord in a minor key.

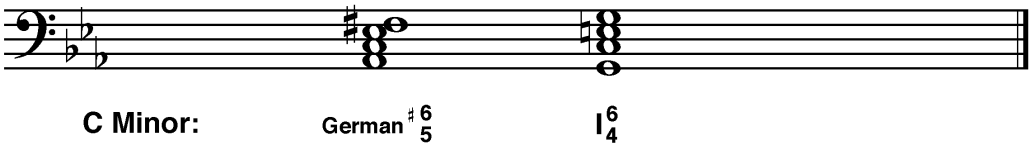
The reason for this preference is that in minor keys only, the German Augmented Sixth chord shares a common tone with the tonic six-four chord's minor third. In the example below in C minor, the diminished seventh E flat, from the German Augmented Sixth's root, is the minor third of the tonic six-four chord. With its common tone and double leading tone of the German Augmented Sixth chord, it is ideal for resolving to a tonic six-four chord in a minor key.

Example: German Augmented Sixth resolving to a minor tonic six-four chord.



However, in a major key, the resolution of a German Augmented Sixth chord to a major tonic six-four chord will inevitably create poor voice leading. In the C major example below, the perfect fifth E flat above the first inversion German Augmented Sixth chord's bass note resolves upward to the major third, E natural, of the tonic six-four chord. The natural tendency of a flat note is to progress downward, not to ascend. It is not the best voice leading to have an E flat ascend to an E natural. It is better to enharmonically respell it as D sharp resolving up to E natural. Therefore, for those composers who have an aversion toward poor voice leading, the Swiss Augmented Sixth chord (the doubly augmented fourth chord) is more apropos.

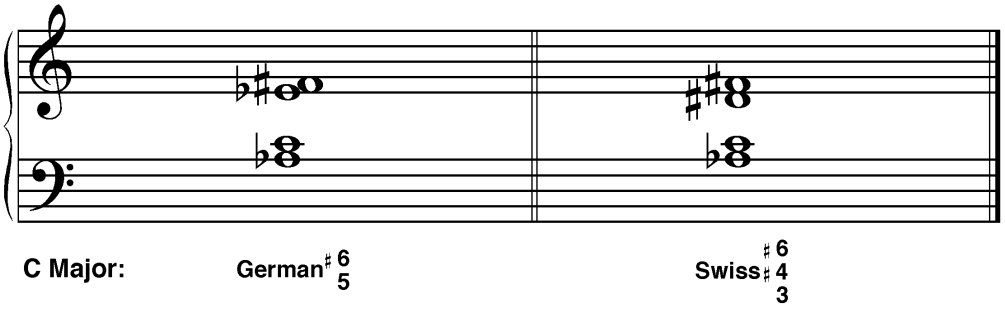
Example: German Augmented Sixth resolving to a major tonic six-four chord.



Swiss Augmented Sixth

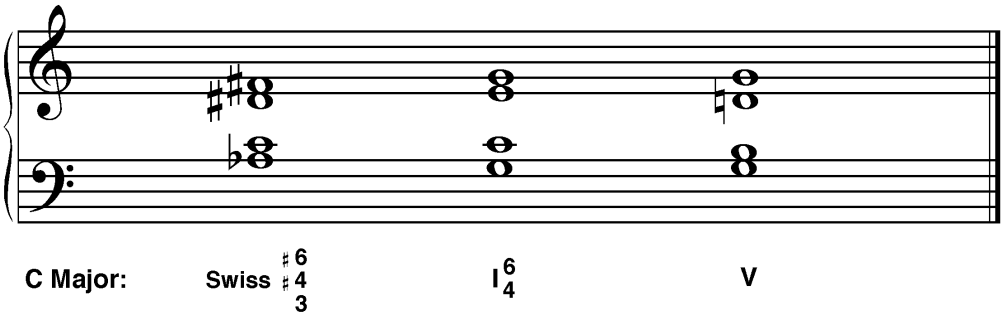
The German Augmented Sixth chord is an appropriate segue to the Swiss Augmented Sixth chord by way of its enharmonic equivalent. One way of avoiding such poor voice leading in major keys was that in lieu of a German Augmented Sixth chord composers used its enharmonic equivalent: the doubly augmented fourth, also known today as the Swiss Augmented Sixth chord.

Example: The enharmonic equivalent of a German Augmented Sixth chord and a Swiss Augmented Sixth chord (doubly augmented fourth).



For example, in the key of C major, the perfect fifth, E flat, above the bass tone of the German Augmented Sixth chord is substituted enharmonically with a D sharp. Both chords sound identical and both augmented sixth chords may resolve to a tonic six-four chord in a major key, but the voice leading of the Swiss Augmented Sixth chord (doubly augmented fourth) creates a better voice leading to the major tonic six-four chord. The enharmonic equivalent, D sharp, functions as a lower leading tone to the major third of the tonic six-four chord. Thus, the Swiss Augmented Sixth chord produces two lower leading tones, one of which resolves to the major third and the other to the perfect fifth of the major tonic six-four chord. In addition, as a substitute for the German Augmented Sixth chord, the Swiss Augmented Sixth chord (doubly augmented fourth) provides better voice leading in a major key.

Example: Resolution of the Swiss Augmented Sixth chord (doubly augmented fourth).



Originally the Swiss Augmented Sixth chord was called a "doubly augmented fourth", a derivation of the German Augmented Sixth chord, because of the interval of a doubly augmented fourth when in second inversion. Due to this alteration, it provided appropriate voice leading in major keys.

Although both augmented sixth chords may sound the same and resolve to a tonic six-four chord, the roots of the German and Swiss Augmented Sixth chords are not the same. Because the perfect fifth above the lowest voice in a German Augmented Sixth chord was replaced enharmonically in the Swiss Augmented Sixth chord, creating a doubly augmented fourth, it changed the root of the chord entirely!

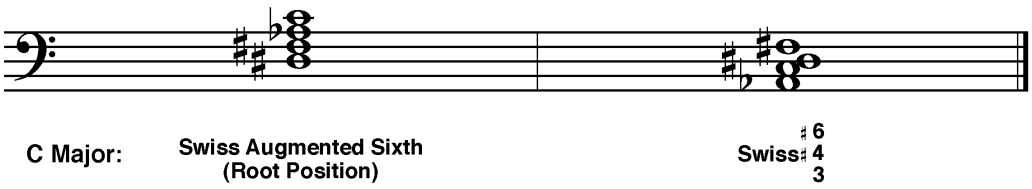
Unlike the Italian and German Augmented Sixth chords which are built on the raised fourth degree of the scale, the Swiss Augmented Sixth chord is built on the raised second degree of the scale. This attribute is more closely associated with the French Augmented Sixth chord, which is built on the diatonic second degree of its scale. Therefore, the Swiss Augmented Sixth chord shares attributes to both the German and French Augmented Sixth chords.

Because of "tertian harmony" (chords built by thirds), it explains why the Swiss Augmented Sixth chord's root is based on the raised second degree. As in the example above in C major, when the perfect fifth, E flat, above the bass note of the German Augmented Sixth chord was enharmonically changed to D sharp, the chord's root became D sharp. In C major, D sharp is the raised second degree of the scale.

When all four notes are superimposed in thirds: D sharp, F sharp, A flat, and C natural, it is clear that D sharp is the root. Therefore, F sharp is no longer the root of the chord as it was with the German Augmented Sixth chord. Instead, D sharp functions as the new root, with F sharp as a minor third, A flat as a doubly diminished fifth (its inversion a doubly augmented fourth), and C natural as a diminished seventh [see example below]. As it is with all augmented sixth chords with the lowered sixth degree in major or diatonic sixth degree in minor employed in the lowest voice, the Swiss Augmented Sixth chord is in "second" inversion, unlike the Italian and German which are in first inversion. The most common position of the Swiss Augmented Sixth chord is in second inversion, which is the same as the French Augmented Sixth chord.

When the Swiss Augmented Sixth chord is used in second inversion, the doubly diminished fifth from its root becomes a doubly augmented fourth from its third in the bass: A flat to D sharp. In addition to its augmented sixth, the doubly augmented fourth from the bass note of the Swiss Augmented Sixth chord in second inversion explains why it was originally called a doubly augmented fourth chord.

Example: A root position and second inversion Swiss Augmented Sixth chord.

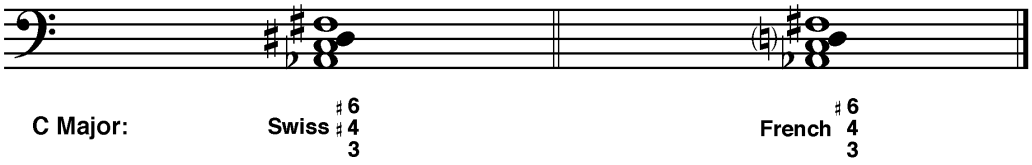


French Augmented Sixth

The most distinct and disparate sounding chord of the four augmented sixth chords is the French Augmented Sixth. As we discussed earlier, the Italian, German, and Swiss all enharmonically sound as a dominant seventh chord, of course, each with a different destination. However, the French Augmented Sixth chord stands out with the most unique and different sound as well as having the capacity to have a more broad resolution than the other three augmented sixth chords.

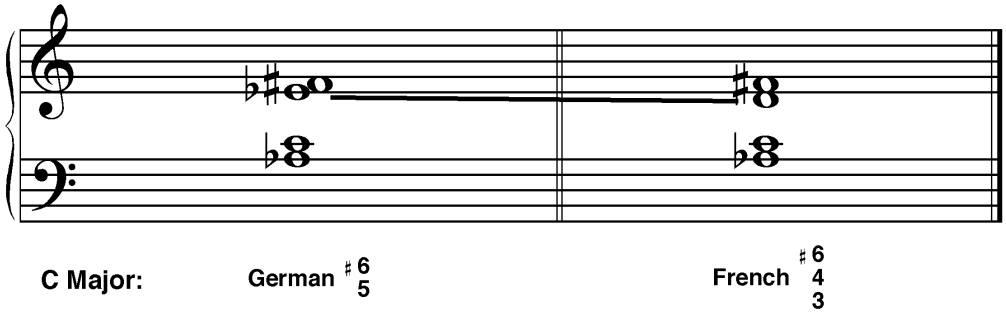
As discussed with the previous augmented sixth chord, the Swiss Augmented Sixth chord is built on the sharped or raised second degree of the scale. Similarly, the French Augmented Sixth chord also has a root based on the second degree of the scale. However, unlike the Swiss Augmented Sixth, the French Augmented Sixth's root is based on the diatonic second degree of its scale, not the raised second degree. Both augmented sixth chords, the French and Swiss, are also in second inversion, whereas the Italian and German are in first inversion.

Example: The similarities with the Swiss Augmented Sixth chord and the French Augmented Sixth chord. Both augmented chords include, respectively, roots based on either the raised second degree or diatonic second degree (the dark note refers to the root).



The French Augmented Sixth chord also shares similarities with the German Augmented Sixth chord. The only difference between the two augmented chords is that the tone a perfect fifth above the bass in a German Augmented Sixth is lowered by one half step to create the French Augmented Sixth chord. This is very similar to the previous example where we transformed a Swiss Augmented Sixth to a French Augmented Sixth by lowering only one tone. However, the Swiss descends by a chromatic half step, while the German descends by a diatonic half step (e.g., D sharp to D natural and E flat to D natural, respectively). Nevertheless, because of this alteration, the root of the chord changes, and the French Augmented Sixth chord's resolution is more broad.

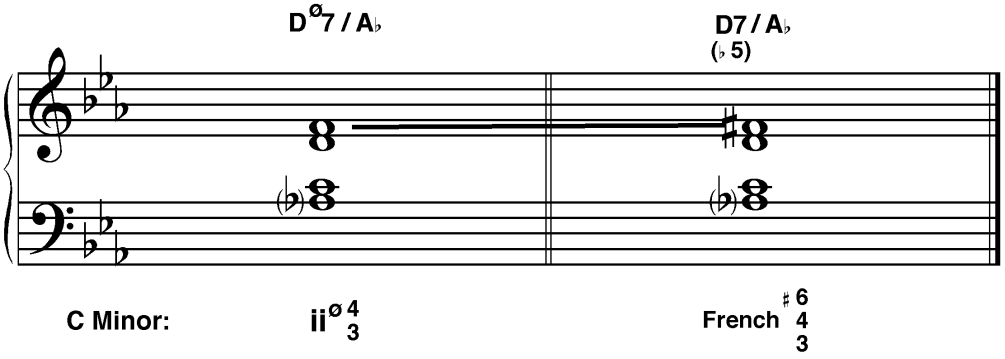
Example: The similarities with the German Augmented Sixth and the French Augmented Sixth chord.



In a minor key, one can see how the French Augmented Sixth chord is closely associated with the supertonic half-diminished seventh chord. In C minor for example, the ii^{Ø}7 is D natural, F natural, A flat, and C natural. If you place the ii^{Ø}7 in second inversion and sharp its third from F natural to F sharp, the altered supertonic half-diminished seventh chord in second inversion is transformed as a French Augmented Sixth chord that is also in second inversion.

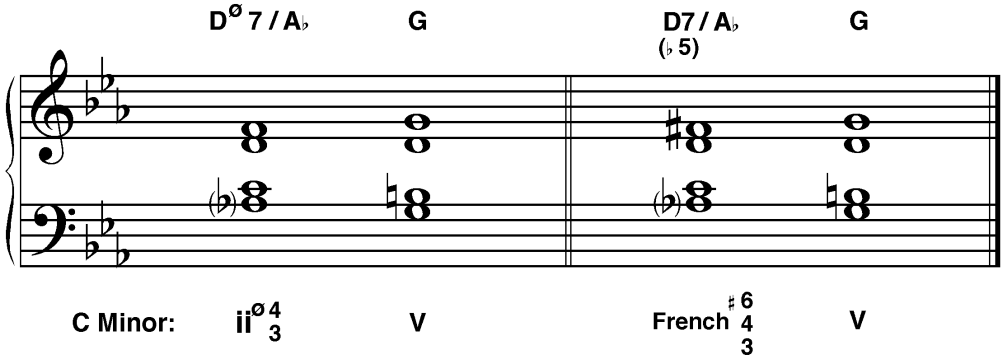
In addition to tertian harmony, the French Augmented Sixth chord's relationship to the supertonic half-diminished seventh chord demonstrates how its root is based on the second degree of the scale.

Example: In a minor key, the similarities with the supertonic half-diminished seventh chord and the French Augmented Sixth chord.



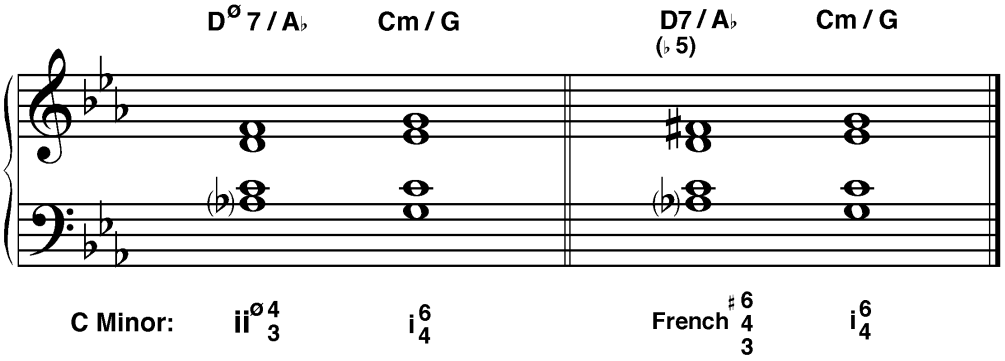
In addition to sharing the same root, in a minor key, the supertonic half-diminished seventh chord and the French Augmented Sixth chord both desire to resolve to the dominant of its key.

Example: In a minor key, the supertonic half-diminished seventh chord and the French Augmented Sixth chord both share the same resolution to a dominant.



Although the ii^{Ø}7 can also progress to a tonic six-four chord, the French Augmented Sixth chord provides even a stronger progression to the minor tonic six-four chord by way of having three leading-tones. In the example below, the French Augmented Sixth chord's A flat and F sharp are both, respectively, the upper and lower leading tones to the fifth of the tonic six-four chord. The third leading tone is D natural, which resolves upward to the minor third of the tonic six-four chord.

Example: In a minor key, the supertonic half-diminished seventh chord and the French Augmented Sixth chord both share the same resolution to a tonic six-four chord.

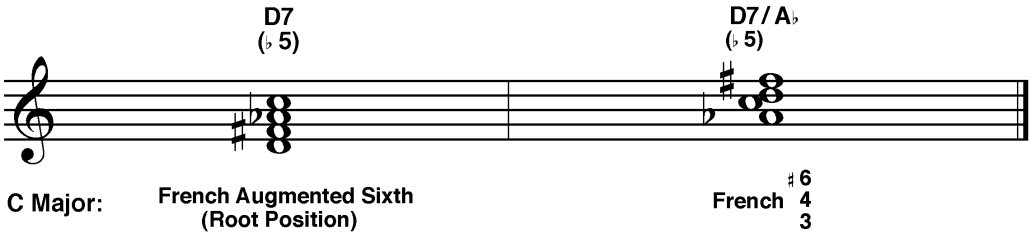


As already discussed, the Italian Augmented Sixth chord traditionally resolves to the dominant. The German Augmented Sixth chord traditionally resolves to a minor tonic six-four chord, while its enharmonic equivalent, the Swiss Augmented Sixth chord resolves to a major tonic six-four chord. But unlike the Italian, German, and Swiss Augmented Sixth chords, the French Augmented Sixth chord is not limited with its resolution. Because of its intervallic structure, the French Augmented Sixth chord can resolve in the same manner as all the other three augmented sixth chords. Therefore, the French Augmented Sixth chord can resolve to either a dominant or a tonic six-four chord in minor or major.

Chapter 23: The Italian, German, French, and Swiss Augmented Sixth Chords: A Traditional Perspective (continued)

As with the Italian, German, and Swiss Augmented Sixth chords, the French Augmented Sixth chord is also most commonly used in an inverted position. As with the Swiss Augmented Sixth, the French Augmented Sixth chord is traditionally in second inversion.

Example: A root position and second inversion French Augmented Sixth chord.

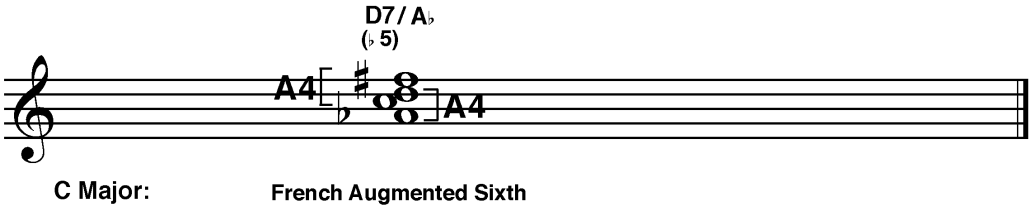


In addition to all four augmented sixth chords with their inverted positions, the French Augmented Sixth chord also includes a raised fourth degree and a lowered sixth degree in major, or a diatonic sixth degree in minor. As with the other three augmented chords, the French also includes the tonic note as part of its chord. It is the second degree of the major or minor scale that is part of the French Augmented Sixth chord fabric that is uniquely different amongst them all. It is the second degree that also creates a different root for the chord, based on tertian harmony.

In the example above, following the rules of tertian harmony, the root position French Augmented Sixth chord shows unequivocally that the root is D natural. The F sharp serves as the major third, the A flat as the diminished fifth (lowered/flat fifth), and the C natural as the minor seventh. The French Augmented Sixth is simply a D dominant seventh chord with a lowered (flat) fifth. Both chords share the same desire to resolve to the dominant of its key as a secondary dominant [see following examples].

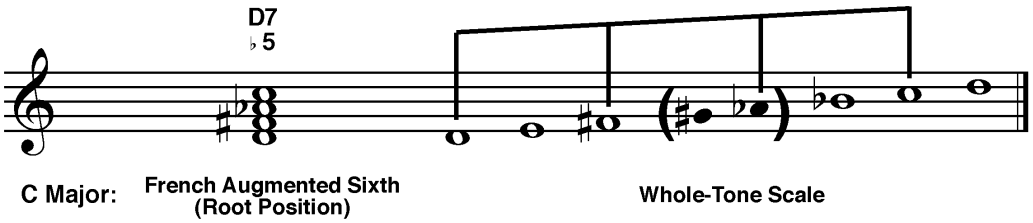
The most suigeneris aspect of the French Augmented Sixth chord's sound and intervallic structure is that the chord includes two augmented fourths. As shown in the C major example, when the French Augmented Sixth chord is in second inversion, there are two obvious augmented fourths. The first augmented fourth is between its bass note A flat and its root D natural. The second augmented fourth is between C natural (the diminished fifth of the chord) and F sharp (the major third of the chord and an augmented sixth from the bass).

Example: A second inversion French Augmented Sixth chord and its two augmented fourths.



The French Augmented Sixth chord's interesting sound is also derived from its intervallic structure outlining a whole-tone scale. Add an E natural between the French Augmented Sixth chord's root and major third as well as a B flat between its flat fifth and minor seventh, one clearly sees the making of a whole-tone scale!

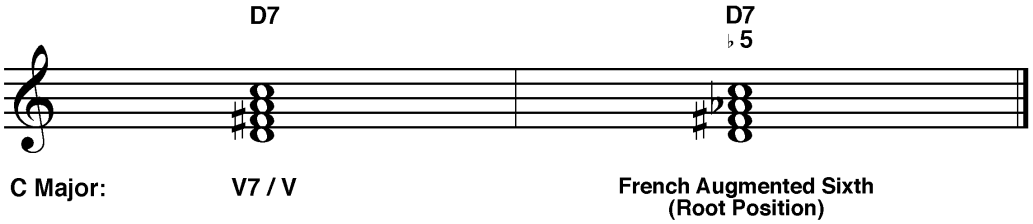
Example: A root position French Augmented Sixth chord related to a whole-tone scale.



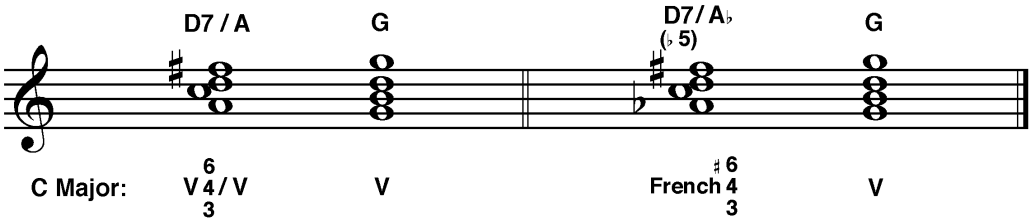
C Major: French Augmented Sixth (Root position) Whole-tone scale

As mentioned earlier, all the augmented sixth chords function as a pre-dominant sonority, in the same manner as a secondary dominant. It is clear in the example below that the lowered fifth of a D dominant seventh chord will result in a French Augmented Sixth chord sharing the same resolution to its dominant [see the second example below].

Example: Comparing a root position D dominant seventh chord with a French Augmented Sixth chord.



Example: The resolution of a second inversion D dominant seventh chord and a French Augmented Sixth chord.



WORKBOOK

Chapter 24:
Augmented Sixth Chords: Additional Reading Materials

Recommended reading materials of augmented sixth chords (bibliography)

Piston, Walter and DeVoto, Mark. Harmony, Fifth Edition.

Part One: Tonal Harmony in Common Practice

Chapter 27: Augmented Sixth Chords, pp. 419 – 433.

Shir-Cliff, Justine. Chromatic Harmony.

Chapter 12: The Augmented Sixth Chords: The Italian Sixth, pp. 81 – 85.

Chapter 13: The Augmented Sixth Chords: The German Sixth, pp. 86 – 91.

Chapter 14: The Augmented Sixth Chords: The French Sixth, pp. 92 – 95.

Spencer, Peter. The Practice of Harmony, Fifth Edition.

Chapter 20: Augmented Sixth Chords, pp. 247 – 262.

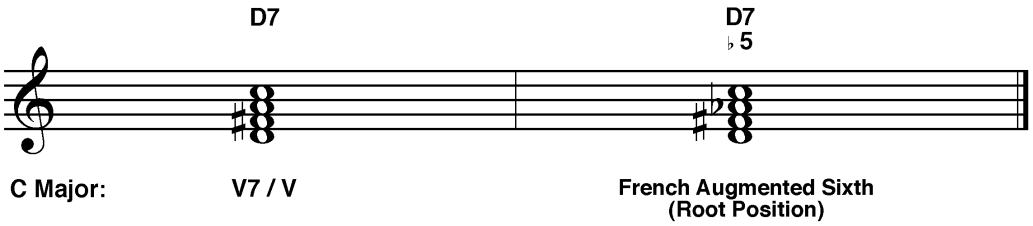
WORKBOOK

Chapter 25:
The Role of Augmented Sixth Chords As Implied, Altered Secondary Dominant Seventh Chords: A Contemporary Perspective

Some theorists today prefer to analyze three of the four augmented sixth chords, respectively, the Italian, German, and French Augmented Sixth chords as implied, altered secondary dominant seventh chords of the dominant.

As discussed earlier, the French Augmented Sixth chord's root is based on the second degree of the scale. Despite its unusual intervallic structure and sound, because of its root, an unaltered diatonic second degree, the French is more closely associated with the V7/V than the other augmented sixth chords. With its root, the diatonic second degree, the French Augmented Sixth chord implies an altered, but functional secondary dominant seventh of the dominant. The only difference between the traditional V7/V and the French Augmented Sixth chord is that the French includes one slight modification, a chromatically lowered fifth. For example, in C major, V7/V is D natural, F sharp, A natural, and C natural. When the perfect fifth of the V7/V is lowered a half step, a French Augmented Sixth chord will result: D natural, F sharp, **A flat**, and C natural. Both the V7/V and the French Augmented Sixth chords have the same function as pre-dominant sonorities, with their roots based on the diatonic second degree of the scale.

Example: The French Augmented Sixth as an implied, altered secondary dominant seventh chord compared to the V7/V.



Chapter 25: The Role of Augmented Sixth Chords As Implied, Altered Secondary Dominant Seventh Chords: A Contemporary Perspective (continued)

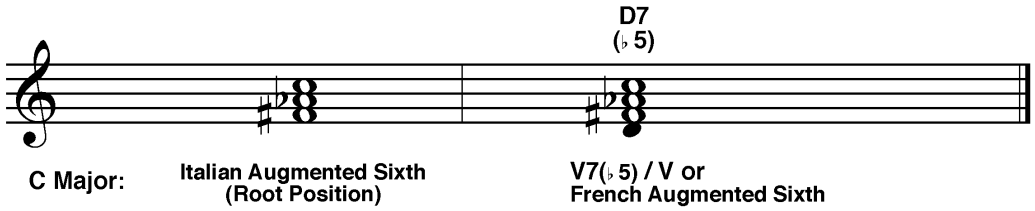
Unlike the French Augmented Sixth chord, the Italian and German Augmented Sixth chords' roots are based on the raised fourth degree; therefore, both have been traditionally referred to as altered subdominant chords. However, the Italian and German Augmented Sixth chords do not sound or function as altered subdominants, but more accurately as altered or implied secondary dominants of the dominant.

As with the French Augmented Sixth chord, the Italian and German Augmented Sixth chords can also be considered altered secondary dominants of the dominant, by way of an implied second degree as their root. For example, if a major third is hypothetically added below the root of an Italian and German Augmented Sixth chord, an implied, altered secondary dominant is formed.

If the added tone was not implied and actually added as a major third below the Italian Augmented Sixth's root, the augmented chord would be transformed as a French Augmented Sixth chord. The same would occur with the German, except it would include a minor ninth above its new root. The added note demonstrates how closely they are related to the French Augmented Sixth chord as one family. All three augmented sixth chords also share the same role as implied, altered secondary dominant seventh chords with a flat fifth.

In the example below in C major, the Italian Augmented Sixth chord is spelled in root position as: F sharp, A flat, C natural. Add a D natural, a major third below the Italian Augmented Sixth's root, F sharp, its complexion, sound, and root is completely altered. Based on tertian harmony, its new root, D natural, will create a sound more as a D dominant seventh chord with a flat fifth degree of the dominant or simply a French Augmented Sixth chord. Today, it is not uncommon to recognize, analyze, and categorize the Italian Augmented Sixth chord as an incomplete, implied, and altered dominant seventh chord of the dominant with a flat fifth degree.

Example: Italian Augmented Sixth compared to an implied, altered secondary dominant seventh with a flat fifth.

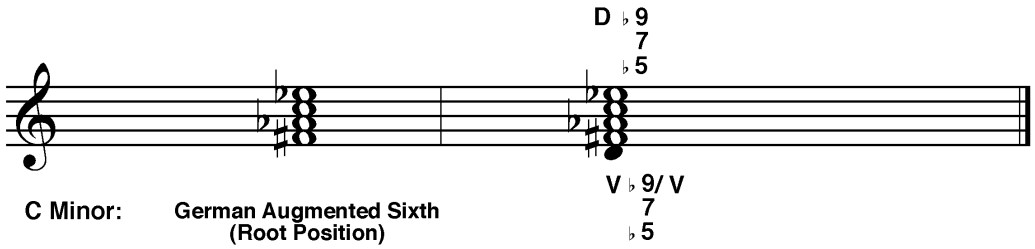


Chapter 25: The Role of Augmented Sixth Chords As Implied, Altered Secondary Dominant Seventh Chords: A Contemporary Perspective (continued)

As discussed earlier, the German Augmented Sixth chord is simply a completed version of the Italian Augmented Sixth chord, which includes a perfect fifth above its bass note when it is in first inversion. Therefore, the same hypothetical root can be applied as well.

When a major third is also added below a root position German Augmented Sixth chord, it will become a French Augmented Sixth chord, but with an added minor ninth. As with the Italian, the German includes a flat fifth degree above its imaginary root. However, unlike the Italian, it will also include a flat ninth degree above its hypothetical root, due to it having four tones instead of three. Nonetheless, both the Italian and German Augmented Sixth chords demonstrate that they are simply rootless, implied, altered secondary dominant seventh chords of the dominant.

Example: German Augmented Sixth compared to an implied, altered secondary dominant seventh chord with a flat ninth and flat fifth.



The contemporary perspective just discussed above demonstrates that an Italian and German Augmented Sixth chord with an implied root from the diatonic second degree not only facilitates unity between the two augmented sixth chords but how closely they parallel the French Augmented Sixth chord. Understanding that the Italian and German Augmented Sixth chords are rootless secondary dominant seventh chords of the dominant with a flat fifth confirms how they, along with the French Augmented Sixth chord, are more accurately recognized as altered secondary dominants seventh chords. This contemporary perspective also reveals that the three augmented sixth chords are more like a family rather than individual identities.

It is also important to add that the parallelism between the Italian and German Augmented Sixth chords as altered and implied secondary dominants of the dominant should not be confused with their enharmonic equivalents. Although the Italian and German Augmented Sixth chords are the enharmonic equivalent to the dominant seventh of the Neapolitan, suggesting a secondary dominant of the Neapolitan, they are not such identities. Because of their actual spelling and resolution as Augmented Sixth chords, they function as pre-dominant sonorities. The musical analyses above only exemplifies how the Italian and German Augmented Sixth chords are closely related to the French Augmented Sixth chord by adding a diatonic second degree to their chords. Together, their characteristic elements between the three augmented sixth chords imply their status as altered secondary dominant sevenths of the dominant.

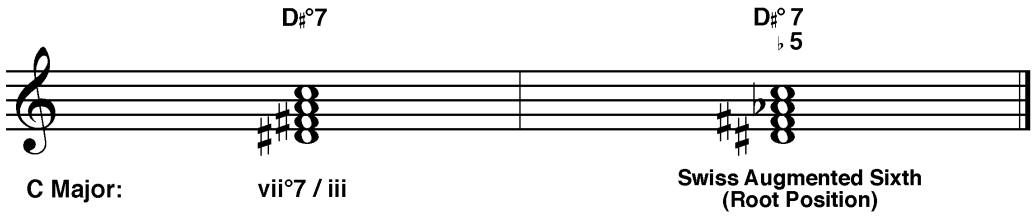
Chapter 25: The Role of Augmented Sixth Chords As Implied Secondary Dominant Seventh Chords: A Contemporary Perspective (continued)

Unlike the other three augmented sixth chords, the Swiss Augmented Sixth chord has a root based on the raised second degree of the scale. Although the Swiss and German Augmented Sixth chords are enharmonic equivalents, their roots are not. Because of its raised second degree as the root, the Swiss Augmented Sixth chord does not have the potential to include a root or an implied root that is based on the diatonic second degree of the scale, which would imply the V7/V.

With its root as a raised second degree, the Swiss Augmented Sixth chord more closely resembles a full-diminished seventh chord with a lowered fifth. Applying the contemporary analysis to the Swiss Augmented Sixth chord will result in two roots. For example, including an implied root based on the diatonic second degree for the Swiss Augmented Sixth chord would only conflict with its root based on the raised second degree. Therefore, it may be more accurate to view the Swiss Augmented Sixth chord by its raised second degree as root outlining a full-diminished seventh chord with a flat fifth degree. Although the quality of its sound is still of a dominant seventh chord, its spelling suggests otherwise.

The example below in C major represents a D sharp full-diminished seventh chord in root position consisting of four tones: D sharp, F sharp, A natural, and C natural. The full-diminished seventh chord includes a superimposition of all minor thirds, creating from its root a minor third, diminished fifth, and diminished seventh. By chromatically lowering the fifth from A natural to A flat of the D sharp full-diminished seventh chord, it is transformed to a Swiss Augmented Sixth chord: D sharp, F sharp, **A flat**, and C natural. The only difference between the two chords is that the Swiss Augmented Sixth chord includes a doubly diminished fifth from its root: D sharp to A flat.

Example: A root position full-diminished seventh chord compared to a Swiss Augmented Sixth chord.



Therefore, the Swiss Augmented Sixth chord is not a good candidate for analysis with an implied root based on the second degree of the scale, since it already includes a root based on the "raised second degree" of the scale. However, when the contemporary interpretation is applied in analysis to the Italian, German, and French Augmented Sixth chords as implied, altered secondary dominant seventh chords of the dominant with a "flat fifth degree", the Swiss Augmented Sixth chord does also share the lowered or "flat fifth degree". Therefore, this resemblance (from the contemporary perspective) of the four augmented sixth chords all having a flat fifth degree from their root or implied root creates a unique family among them.

Conclusion

Because the augmented sixth chords are traditionally employed as pre-dominant sonorities, some theorists today have adopted this new, contemporary perspective that they are merely implied, altered secondary dominants of the dominant. The Italian and German Augmented Sixth chords are analyzed as rootless secondary dominants of the dominant with a flat fifth (the German including a minor ninth). The French Augmented Sixth chord is viewed as a secondary dominant seventh chord of the dominant with a flat fifth degree, its root based on the second degree of the scale. All three augmented sixth chords are strongly unified and emphatically reinforce the contemporary perspective that they represent V7/V with a flat fifth with either a root or an implied root. With the Swiss Augmented Sixth chord also including a lowered fifth from its root, all four augmented sixth chords share the same characteristic element. More importantly, all four augmented sixth chords share the same function as pre-dominant sonorities.

The traditional perspective of the Italian, German, Swiss (doubly augmented fourth), and French Augmented Sixth chords, discussed earlier in this textbook and in other textbooks, is still well accepted among music theorists; however, the contemporary perspective that they are implied, altered secondary dominants of the dominant is very compelling.

WORKBOOK

Chapter 26:
Augmented Sixth Chords: Enharmonic Equivalents

Enharmonic equivalents

The Italian, German, and Swiss Augmented Sixth chords have distinct similarities and differences between their enharmonic equivalent: the dominant seventh chord. As we already learned, the Italian, German, and Swiss Augmented Sixth chords (excluding the French Augmented Sixth chord) all sound like dominant seventh chords, but their resolution and destination, as augmented sixth chords, are different not only from one another, but from the dominant seventh chord itself. But as we will see below, when one or two tones are enharmonically altered with the Italian, German, and Swiss Augmented Sixth chords, they will not only continue to share the same sound, but they will also have the same function as dominant seventh chords.

As discussed earlier, the two most important tones of an augmented sixth chord are its flat or lowered sixth degree (in the lower voice) and raised fourth degree (in the upper voice), which create an augmented sixth. For example, in the key of C major, the augmented sixth chord consists in the bass of an A flat (the third) and in one of the upper voices of an F sharp (the root), which creates an augmented sixth for all four augmented sixth chords in their respective key. However, if the root F sharp of an Italian and German Augmented Sixth chord were enharmonically respelled as G flat, the distance between the bass note A flat and its new enharmonic equivalent G flat would be a minor seventh, creating a new root and chord! In the key of C major, the new chord would be an A flat dominant seventh chord, a secondary dominant of the Neapolitan.

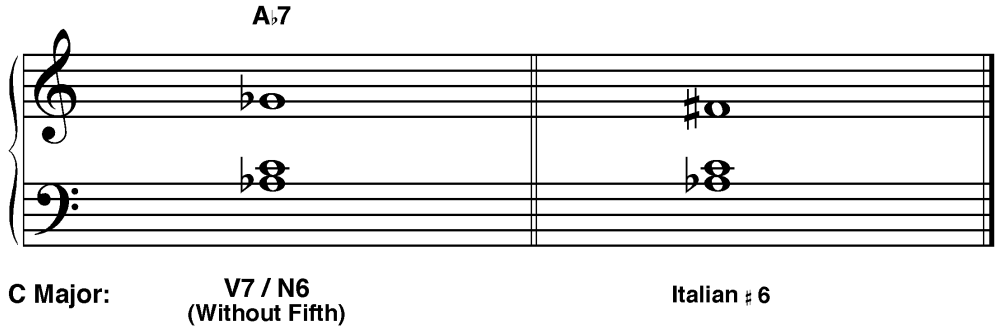
To elaborate further in C major, the Italian Augmented Sixth chord in first inversion is A flat, C natural, and F sharp, while the German Augmented Sixth chord is A flat, C natural, E flat, and F sharp. If the augmented sixth F sharp were enharmonically respelled as G flat (becoming a minor seventh of the chord), and the other notes of the Italian and German remained the same, the two chords would be transformed as an
A flat dominant seventh chord. Of course with only three tones, the Italian would be transformed as an incomplete dominant seventh without its fifth, while the German would be transformed as a complete dominant seventh chord.

Because of tertian harmony, A flat would become the new root, with C natural as a major third, E natural (from the German) as a perfect fifth, and G flat as a minor seventh. When the augmented sixth F sharp is enharmonically respelled as G flat (the minor seventh), a new direction is assigned for its tone. As with all dominant seventh chords, the minor seventh progresses chromatically down to the third of its tonic. Therefore, the enharmonic shift to G flat would descend chromatically to F natural, the third of the Neapolitan's D flat major triad. If the F sharp had remained as part of the augmented sixth chord in lieu of G flat, its role would be to resolve in the opposite direction, chromatically up to the root of the dominant or fifth of the tonic six-four chord. Therefore, it is interesting how an enharmonic alteration of only one tone of an Italian and German Augmented Sixth chord can create an entire new identity, changing the function and role of each note of both chords, creating a secondary dominant of the Neapolitan.

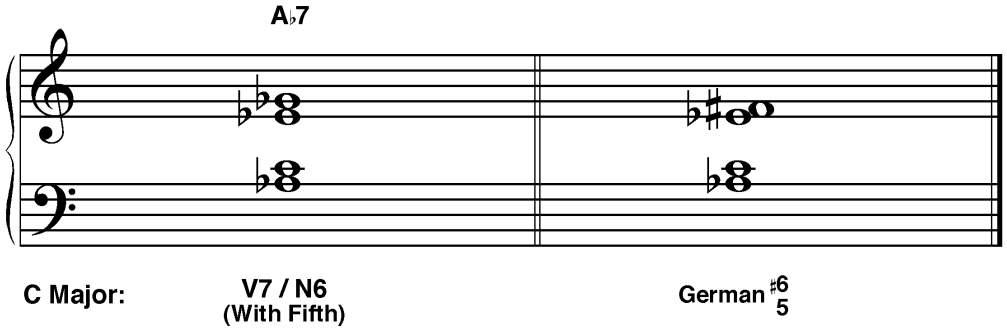
However, to create the same effect with the Swiss Augmented Sixth chord in C major consisting of A flat, C natural, D sharp, and F sharp, two tones would have to be enharmonically respelled, respectively: D sharp (the doubly augmented fourth) and F sharp (the augmented sixth). Both tones would be transformed enharmonically as E flat and G flat, respectively, to create a perfect fifth and minor seventh for the A flat dominant seventh chord of the Neapolitan. Therefore, all three augmented sixth chords can be modified through an enharmonic equivalent to become a secondary dominant of the Neapolitan.

The purpose of the three examples above is to illustrate how the Italian, German, and Swiss Augmented Sixth chords sound the same enharmonically as a secondary dominant of the Neapolitan, but without the same resolution. With the Italian, German, and Swiss chords spelled correctly as augmented sixths, their function will remain as pre-dominant sonorities of their key regardless of their sound.

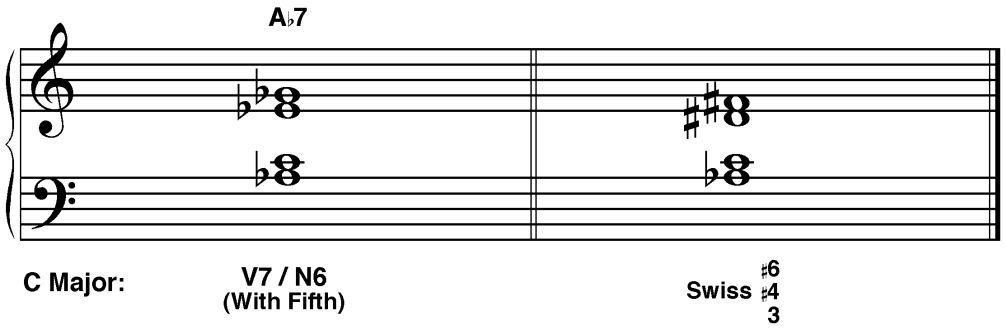
Example 1: Enharmonic equivalents.



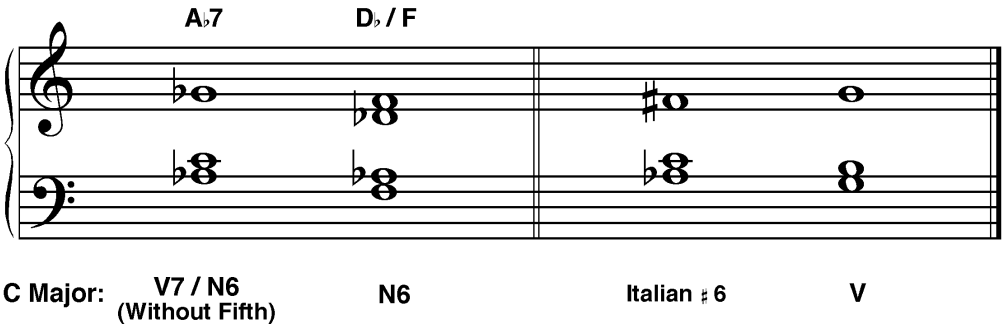
Example 2:



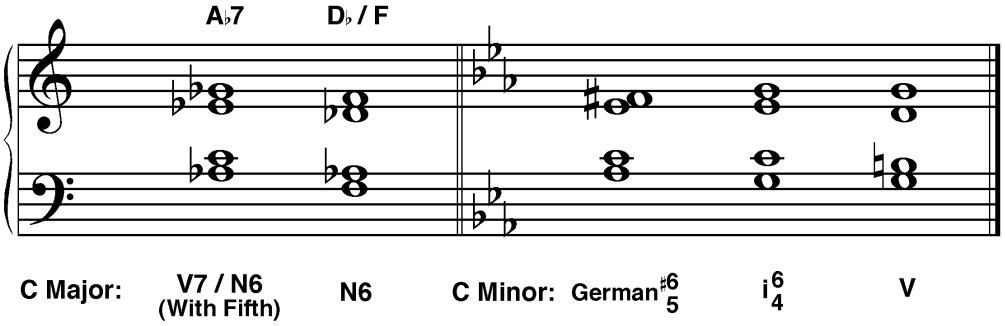
Example 3: Enharmonic equivalents (continued).



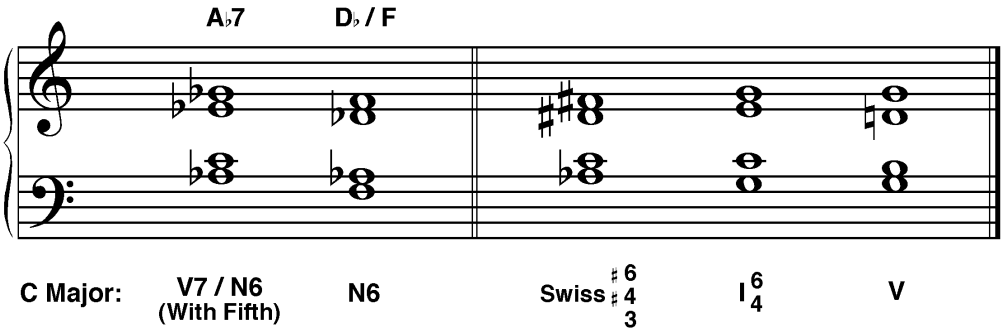
Example 1: The resolution of the enharmonic equivalents.



Example 2:



Example 3: The resolution of the enharmonic equivalents (continued).



WORKBOOK

Chapter 27:
Italian Augmented Sixth Chord: A Review

Important facts to remember: A review

1. The Italian Augmented Sixth chord consists of only three different tones, compared to a total of four tones for the other three augmented sixth chords.

2. In a major key, the three tones of an Italian Augmented Sixth chord consist of a raised fourth degree, lowered sixth degree (diatonic sixth degree in minor), and the tonic note of the scale. These three tones are also characteristic elements of the other three augmented sixth chords.

3. In a four-part setting, the Italian Augmented Sixth chord doubles the tonic note of its chord. The tonic note that is doubled is also a diminished fifth from its root.

4. The preferred destination of an Italian Augmented Sixth chord is to resolve to the dominant of the key.

5. The Italian Augmented Sixth chord is often found in first inversion, the lowered sixth degree in major or diatonic sixth degree in minor is employed in the bass.

6. Based on tertian harmony, the raised fourth degree of the Italian Augmented Sixth chord is the root of its chord. From the root of the Italian Augmented Sixth chord, the lowered sixth degree is a diminished third and the tonic note is a diminished fifth.

7. The raised fourth degree is the root of the Italian and German Augmented Sixth chords only.

8. The Italian Augmented Sixth chord functions as a pre-dominant sonority.

9. Because the raised fourth degree of the Italian Augmented Sixth chord is the root of the chord, early theorists analyzed the Italian Augmented Sixth chord as an altered subdominant. Since the role of a subdominant chord is to progress to a dominant, this analysis was widely accepted among scholars. Today, however, some theorists recognize the Italian Augmented Sixth chord as an incomplete or rootless, altered, implied secondary dominant seventh of the dominant with a flat fifth degree. Its sound and function is not as an altered subdominant, but rather as an altered secondary dominant.

10. Another theoretical perspective shared by some theorists is that the Italian Augmented Sixth chord is a $vii^{o}7/V$ with a flat third. This perspective is similar to the Italian Augmented Sixth chord as an implied, altered secondary dominant seventh of the dominant with a flat fifth. Both perspectives have one thing in common, they support and resolve to the dominant of the key. What both contemporary perspectives do not have in common is that the Italian Augmented Sixth chord sounds more like an incomplete dominant seventh chord than a full-diminished seventh chord with a flat third.

Chapter 27: Italian Augmented Sixth Chord: A Review (continued)

11. The first inversion Italian Augmented Sixth chord includes its lowered sixth degree in major or diatonic sixth degree in minor in the bass, while its root, a raised fourth degree, is employed in any of the upper voices creating an augmented sixth between these two tones. The resolution of the augmented sixth interval is outward to a doubled root of the dominant.

12. When using a figured bass, the indication for the Italian Augmented Sixth chord in first inversion is #6 or It #6.

13. The Italian Augmented Sixth chord is used in major or minor keys. When it is used in a minor key, the sixth degree is diatonic. In a major key, however, it is necessary for the Italian Augmented Sixth chord to include a flat or natural sign to create the lowered sixth degree, which is used in the bass.

14. The Italian Augmented Sixth chord may be built on a scale degree other than the raised fourth degree in order to create remote modulations.

15. The Italian Augmented Sixth chord is an enharmonic equivalent of a three-note dominant seventh chord without its fifth of the Neapolitan.

WORKBOOK

Chapter 28:
Italian Augmented Sixth Chord: Selected Listening Examples

Selected musical works including Italian Augmented Sixth chords

Johann Sebastian Bach (1685-1750)

1. Fugue No. 16 in G Minor, BWV 861, from the Well-Tempered Clavier, Book One, (Measure 27, 1722).

Daniel Steibelt (1765-1823)

1. Romanza, (Piano Piece, Measure 7)

Kalman Chovan (1852-1928)

1. Gypsy Legend, (Piano Piece, Measure 7).

Gioacchino Rossini (1792-1868)

1. Bianca e Falerio, "Cavatina", (Opera, Measure 3).

N. Louise Wright

1. Waltz in B Flat Major, Op. 32, (Piano Piece, Measure 23).

Chapter 28: Italian Augmented Sixth Chord: Selected Listening Examples (continued)

Wolfgang Amadeus Mozart (1756-1791)

1. Fantasia in C Minor, K. 475, (Measure 2, beat 3, 1785).

2. Clarinet Concerto, K. 622, First Movement, (Measure 93, 1791).

3. Piano Sonata in B Flat Major, K. 333, First Movement, (Measures 80, 82, and 84, 1783).

4. Piano Sonata in B Flat Major, K. 333, Third Movement, (Measure 102, 1783).

5. Divertimento No. 14 for Wind Sextet, K. 270, Second Movement, Andantino, Variation VII, (Measures 3 and 16, 1777).

6. Divertimento No. 14 for Wind Sextet, K. 270, Second Movement, Andantino, Variation XII, (Measure 28, 1777).

Ludwig van Beethoven (1770-1827)

1. Symphony No. 5 in C Minor, Op. 67, Movement One, (Measure 20, 1808).

WORKBOOK

Chapter 29:
Italian Augmented Sixth Chord: Analyses

Analyses of selected compositions including Italian Augmented Sixth chords

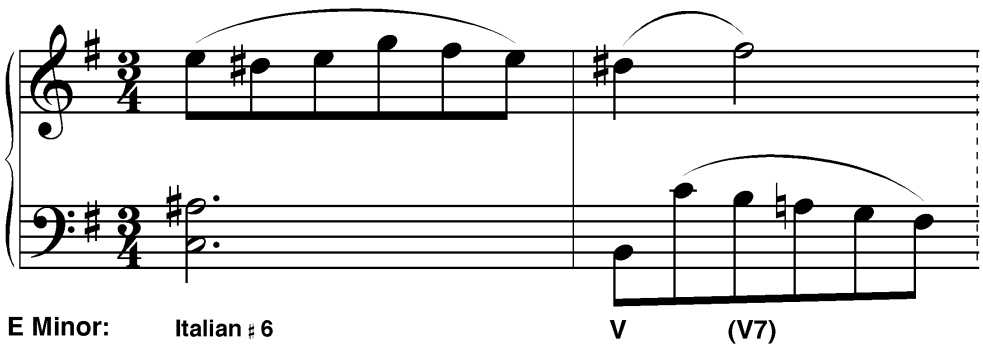
Gypsy Legend, by Kalman Chovan.

This delightful and short twenty bar piano piece by Kalman Chovan includes an Italian Augmented Sixth chord on the downbeat of measure 7 before resolving to the dominant seventh chord in bar 8, creating a half cadence.

The piano piece is in E minor and the meter is in three. It is not uncommon that the penultimate bar before an important cadence includes an augmented sixth chord to solidify the key. The downbeat of 1, 2, and the off beat of 3 all highlight the Italian Augmented Sixth chord. Only on the off beat of beat 2 does the composer introduce a G natural in the melody, which momentarily completes the Italian Augmented Sixth chord as a German Augmented Sixth chord. The G natural is quickly abandoned an eighth note later and resumes to being an Italian Augmented Sixth chord in order to resolve properly to the B dominant of the key. The B dominant seventh chord is not heard until the off beat of 2 in bar 8. The abandonment of the German Augmented Sixth chord as an Italian Augmented Sixth chord prior to its resolution to the dominant is very common in order to avoid parallel fifths.

The augmented sixth dyad in the left hand includes in the lowest voice the diminished third (C natural), the diatonic sixth degree of E minor, and just above in the tenor voice, the root (A sharp), the raised fourth degree. The tonic note of the key, E natural, serving as the diminished fifth of the chord is in the melody. All three tones properly resolve to their destination of the B dominant chord in the following measure. For example, the E natural in the melody resolves chromatically down to the major third, D sharp, of the B dominant. In the lowest voice of the left hand, the C natural descends chromatically to the root of the B dominant. Before the A sharp in the tenor voice resolves to the root of the dominant in the upper voice of the left hand part, it is interrupted briefly by an appoggiatura, C natural, which resolves down by half-step to the B natural. Despite the short interruption of the appoggiatura, the resolution of the A sharp is still clearly obvious, which provides the appropriate voice leading of the augmented sixth.

Example 1:

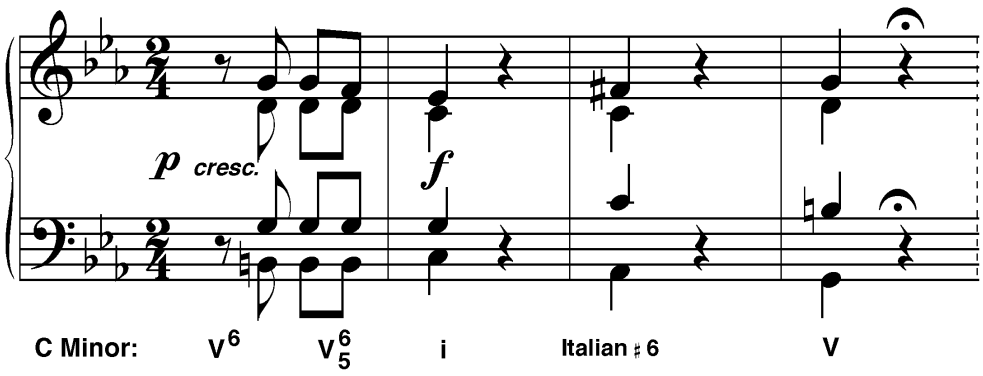


Symphony No. 5 in C Minor, Op. 67, Movement One, (Measure 20, 1808), by Ludwig van Beethoven (1770-1827).

Beethoven's Symphony No. 5 in C Minor, one of the greatest symphonies of all times that exudes heroism and emotionally powerful and dramatic musical elements demonstrates in the opening exposition at measure 20 a blocked harmony punctuating the Italian Augmented Sixth chord. In the piano reduction below, the Italian Augmented Sixth chord is prepared in bars 18 and 19, respectively, with a first inversion dominant (dominant seventh on "and" of beat 2) and a root position tonic chord in C minor. On beat 1 of bar 20, the Italian Augmented Sixth chord is loudly articulated and immediately followed by a rest. The Italian Augmented Sixth chord resolves in the following bar to its dominant of the key.

At bar 20 in the Symphony No. 5 in C minor, the Italian Augmented Sixth chord in first inversion is voiced from its lowest to highest voice as: A flat, F sharp, C natural. The diatonic sixth degree, A flat, resolves appropriately by descending to the root of the G dominant. The augmented sixth above, F sharp, resolves by ascending chromatically to the root of the dominant chord. The tonic note, C natural, the diminished fifth of the Italian Augmented Sixth chord, descends chromatically to B natural, the third of the G dominant triad. The G dominant triad includes a fermata and is followed by a quarter rest. The half cadence at bar 21 signals the key of C minor and concludes the first musical period of the exposition.

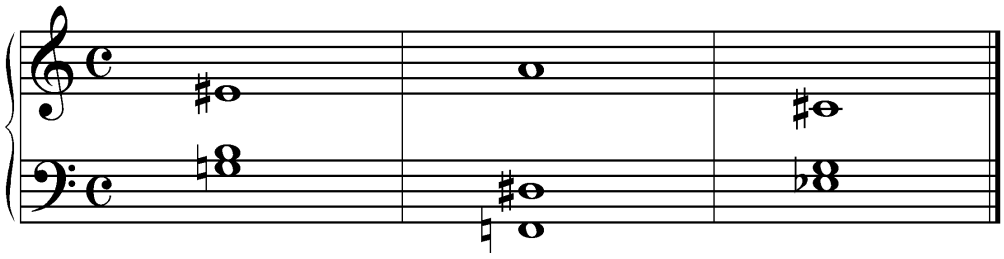
Example 2:



WORKBOOK

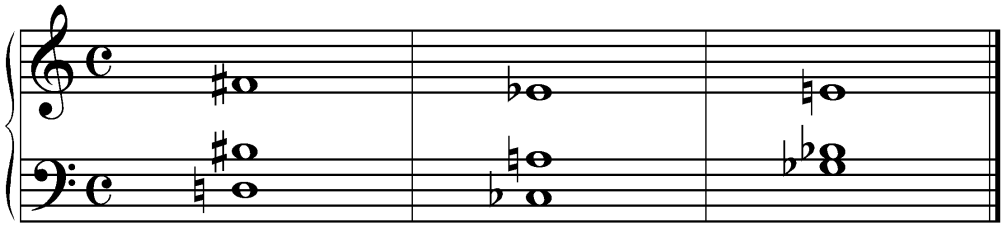
Chapter 30:
Italian Augmented Sixth Chord: Exercises

Identify the following Italian Augmented Sixth chords and their respective key



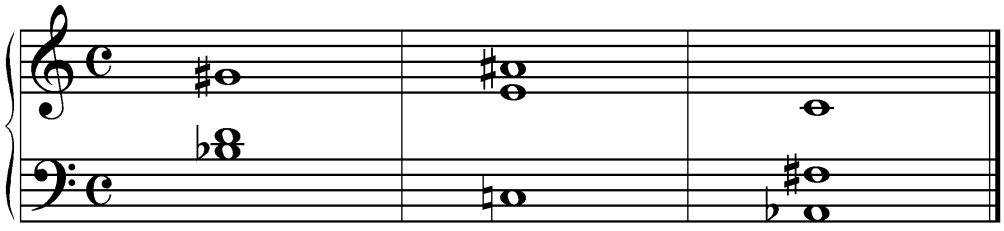
Italian ♯6 **Italian ♯6** **Italian ♯6**

Key: **Key:** **Key:**



Italian ♯6 **Italian ♯6** **Italian ♯6**

Key: **Key:** **Key:**

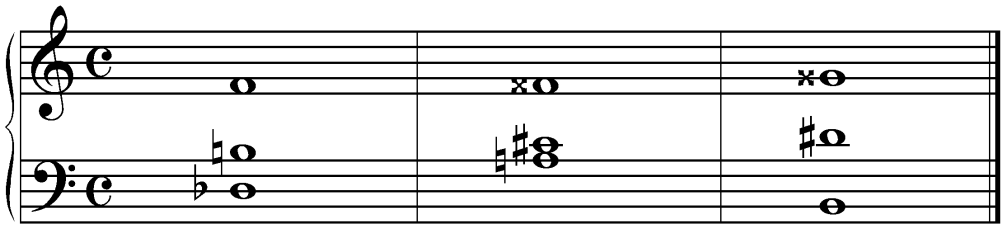


Italian ♯6 **Italian ♯6** **Italian ♯6**

Key: **Key:** **Key:**

Chapter 30: Italian Augmented Sixth Chord: Exercises
(continued)

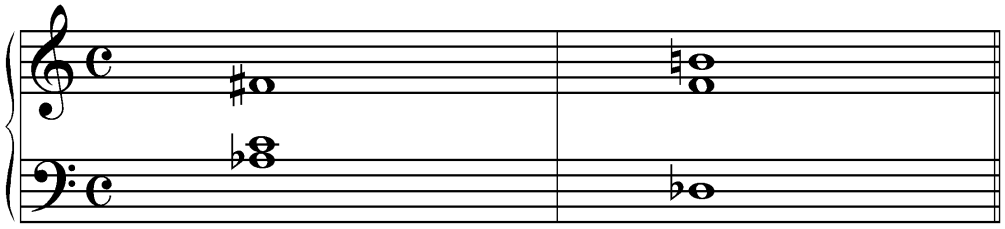
Identify the following Italian Augmented Sixth chords and their respective key (continued)



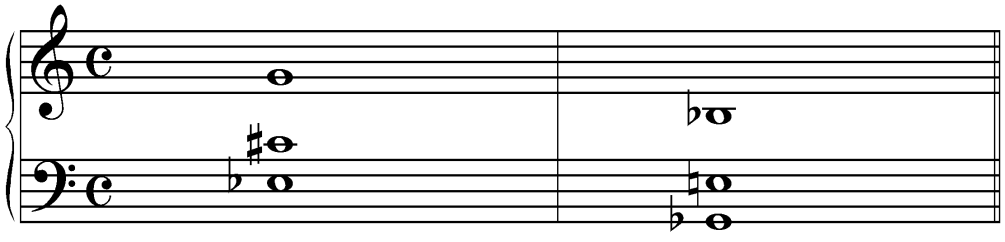
Italian ♯6 **Italian ♯6** **Italian ♯6**

Key: **Key:** **Key:**

<u>Resolve the following Italian Augmented Sixth chords in four parts</u>. You must double one of the three notes in each Italian Augmented Sixth chord below in order to resolve it in four parts based on 17th / 18th century practice. After you have chosen correctly which note to double in the Italian Augmented Sixth chord, then resolve it in four parts to its respective dominant.

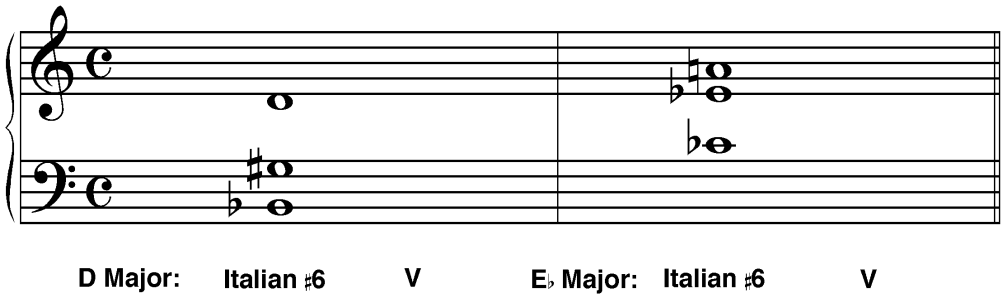


C Major: Italian ♯6 V **F Major: Italian ♯6 V**

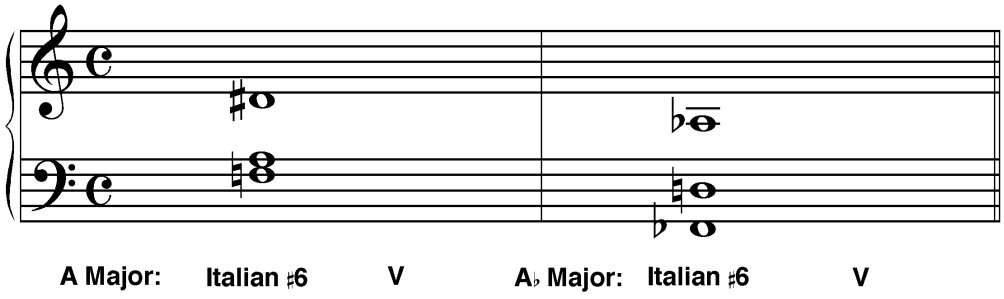


G Major: Italian ♯6 V **B♭ Major: Italian ♯6 V**

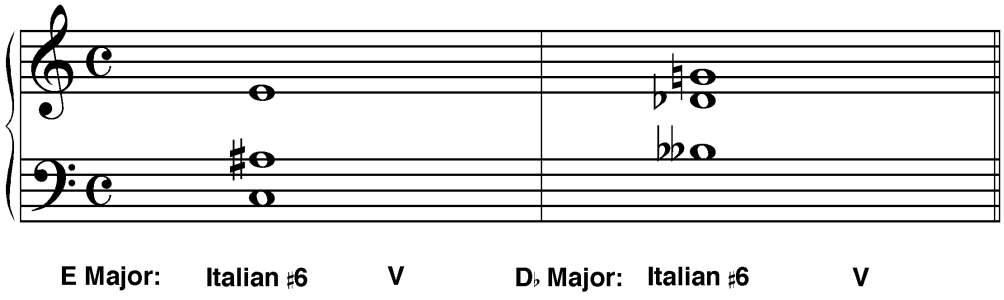
Resolve the following Italian Augmented Sixth chords (continued)



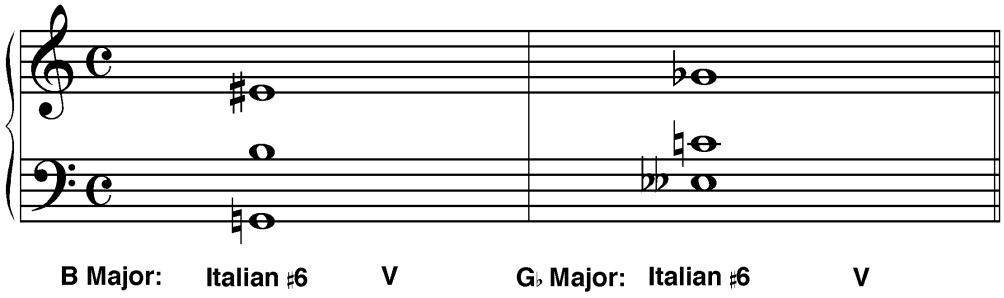
D Major: Italian ♯6 V **E♭ Major: Italian ♯6 V**



A Major: Italian ♯6 V **A♭ Major: Italian ♯6 V**

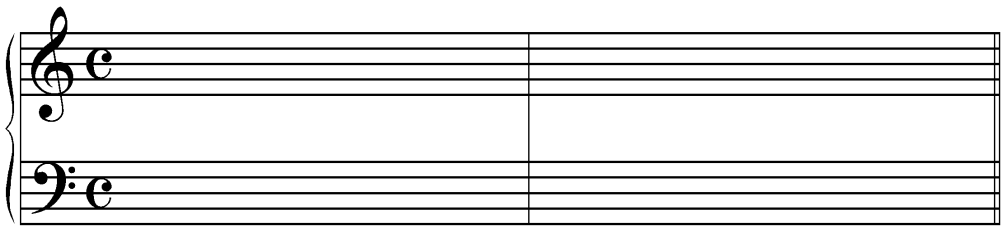


E Major: Italian ♯6 V **D♭ Major: Italian ♯6 V**

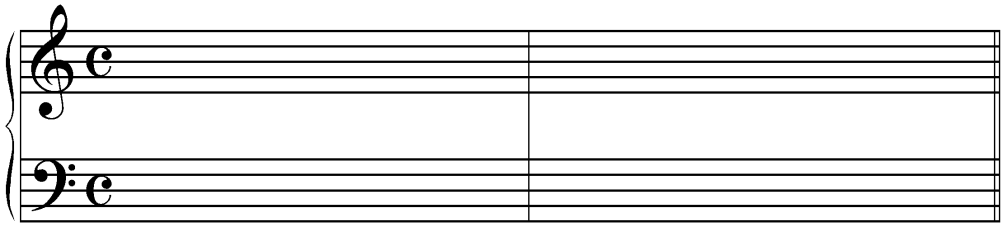


B Major: Italian ♯6 V **G♭ Major: Italian ♯6 V**

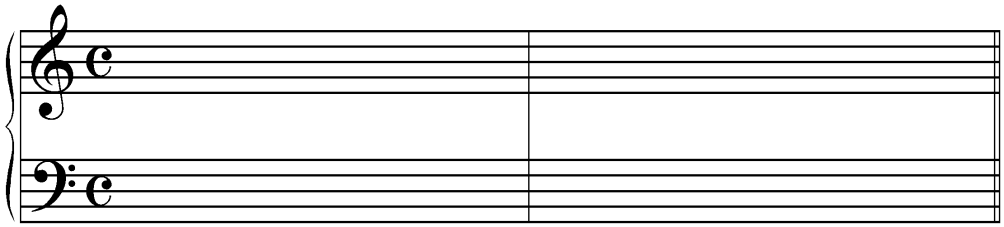
Create an Italian Augmented Sixth chord for the following keys in four-parts



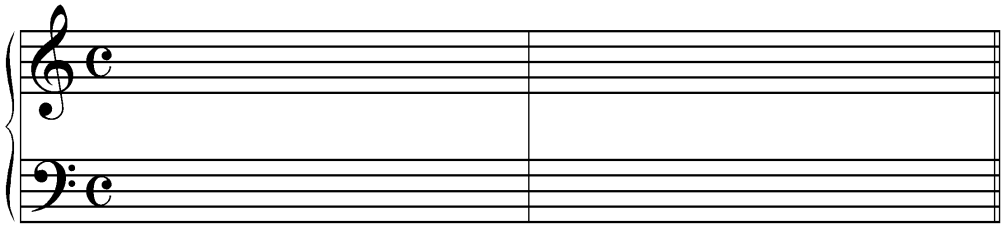
C Minor: **Italian ♯6** **F Minor:** **Italian ♯6**



A Minor: **Italian ♯6** **D Minor:** **Italian ♯6**

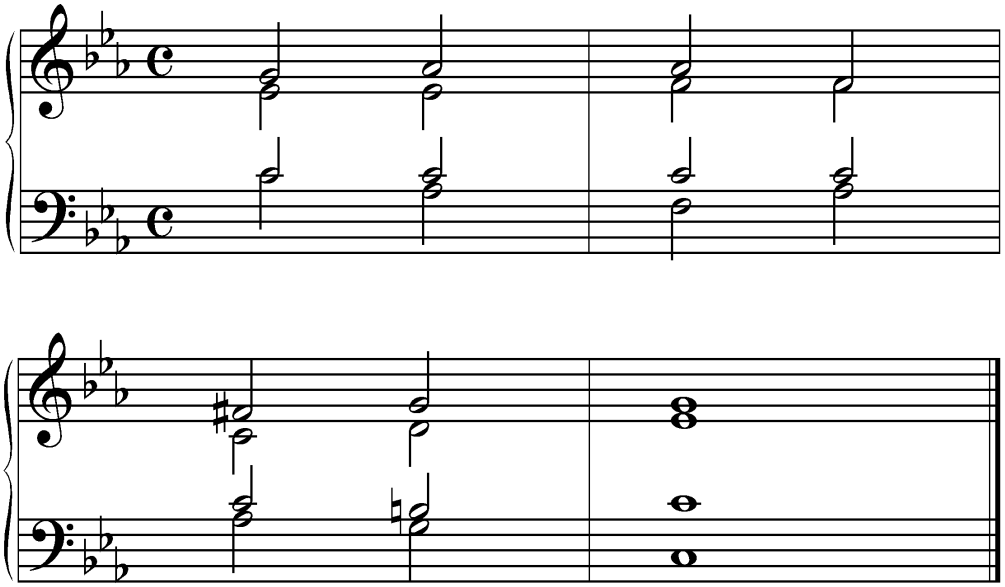


C♯ Major: **Italian ♯6** **F♯ Major:** **Italian ♯6**

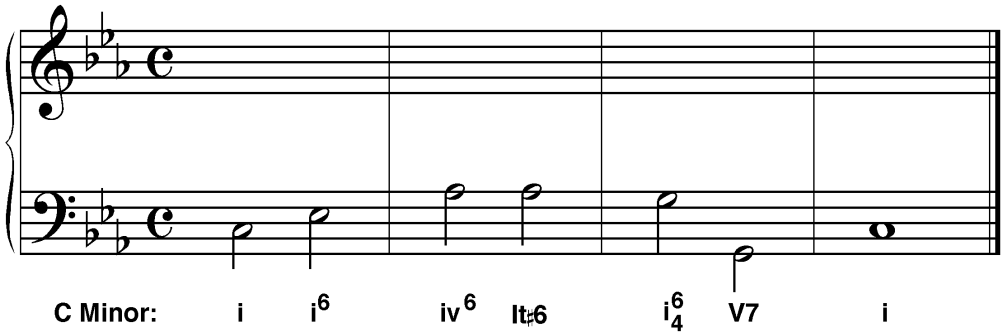


G♭ Major: **Italian ♯6** **C♭ Major:** **Italian ♯6**

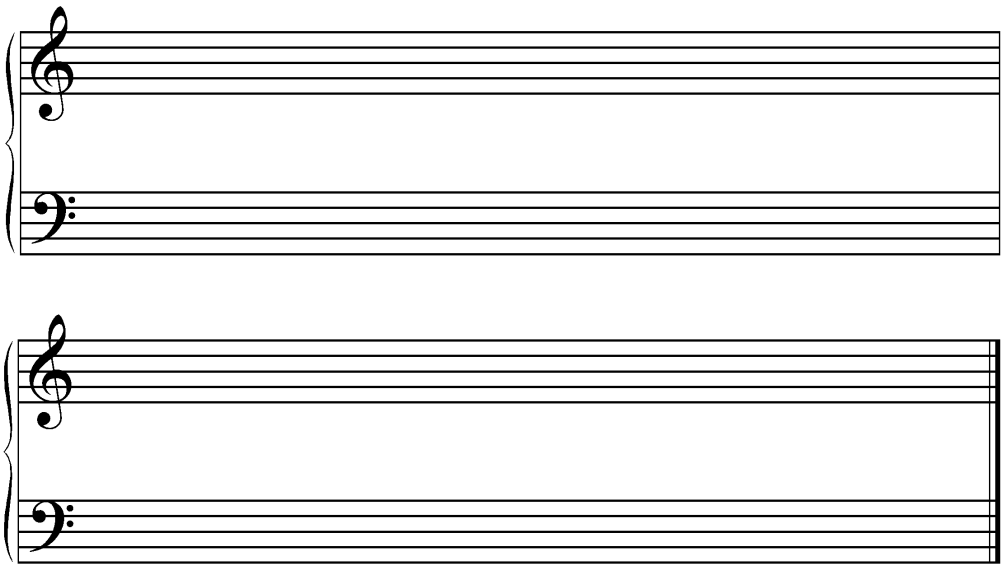
Analyze the four-part chorale including an Italian Augmented Sixth chord



Create a four-part chorale based on the figured bass below, which must include an Italian Augmented Sixth chord at the cadence



Create a four-part chorale including an Italian Augmented Sixth chord (minimum four bars)



WORKBOOK

Chapter 31:
German Augmented Sixth Chord: A Review

Important facts to remember: A review

1. Unlike the Italian Augmented Sixth chord that consists of only three tones, the German Augmented Sixth chord consists of four different tones, which is the same for the French and Swiss Augmented Sixth chords. The German Augmented Sixth chord is viewed as a completed version of the Italian Augmented Sixth chord.

2. The same three tones of an Italian Augmented Sixth chord, which includes a raised fourth degree, lowered sixth degree, and the tonic note of the major scale, are also used as part of the intervallic structure of a German Augmented Sixth chord. However, the German Augmented Sixth chord includes a fourth tone. Its fourth tone is a perfect fifth above the bass note (the lowered sixth degree in major and the diatonic sixth degree in minor). Above the root, however, the added tone is a diminished seventh of the augmented chord.

3. In a four-part setting, the German Augmented Sixth chord must employ all four tones.

4. If the diminished fifth of the German Augmented Sixth chord is omitted from its chord, an Italian Augmented Sixth chord will result.

5. The preferred destination of a German Augmented Sixth chord is to resolve to a minor tonic six-four chord. Although it did occasionally resolve to a major tonic-six four chord or a dominant, especially in the 19th and 20th centuries, the resolution to a minor key was preferred, because of the two common tones shared by the German Augmented Sixth chord and the minor tonic six-four chord. The resolution of a German Augmented Sixth chord to a major tonic-six four chord would create poor voice leading and to a dominant chord would create parallel fifths [For more details, please review the chapter on Augmented Sixth Chords: A Traditional Perspective].

6. The German Augmented Sixth chord is often found in first inversion; the lowered sixth degree in major or the diatonic sixth degree in minor is employed in the bass.

7. Based on tertian harmony, the raised fourth degree of the German Augmented Sixth chord is the root of its chord. Above the root of a German Augmented Sixth chord, it includes a diminished third, diminished fifth, and diminished seventh.

8. Both the Italian and German Augmented Sixth chords share a raised fourth degree as their root. Although the French and Swiss have three tones in common with the Italian and German, they do not have the raised fourth degree as root [For more details, please review the chapter on Augmented Sixth Chords: A Traditional Perspective].

9. As with the other three augmented sixth chords, the German Augmented Sixth chord functions as a pre-dominant sonority.

Chapter 31: German Augmented Sixth Chord: A Review
(continued)

10. Because the raised fourth degree of the German Augmented Sixth chord is the root of the chord, early theorists analyzed the German as well as the Italian Augmented Sixth chords as altered subdominants. Since the role of a subdominant chord is to progress to a dominant, this analysis was widely accepted among scholars. Today, however, some music theorists recognize the German Augmented Sixth chord as an incomplete or rootless, altered, implied secondary dominant seventh of the dominant with a flat fifth degree. Its sound and function is not as an altered subdominant, but rather as an implied, altered secondary dominant.

11. Another contemporary theoretical perspective shared by some theorists is that the German Augmented Sixth chord is a $vii^{o}7/V$ with a flat third. This perspective is similar to the German Augmented Sixth chord as an implied, altered secondary dominant seventh of the dominant with a flat fifth. Both perspectives have one thing in common, that they support and resolve to the dominant of the key. What both contemporary perspectives do not have in common is that the German Augmented Sixth chord sounds like an implied secondary dominant seventh chord than a full-diminished seventh chord.

12. The first inversion German Augmented Sixth chord includes its lowered sixth degree in major or diatonic sixth degree in minor in the bass, while its root, a raised fourth degree, is employed in any of the upper voices creating an augmented sixth between these two tones. The resolution of the augmented sixth interval is outward to a doubled fifth of the minor tonic six-four chord or in less frequent resolutions to a doubled root of the dominant.

13. When using a figured bass, the indication for the German Augmented Sixth chord in first inversion is #6 or Ger. #6.
    5 5

14. The German Augmented Sixth chord is used in major or minor keys. As explained earlier, it is most preferred in minor keys because of the common tone between them. When the German Augmented Sixth chord is used in a minor key, the sixth degree is diatonic. In a major key, however, it is necessary that the German Augmented Sixth chord include a flat or natural sign to create the lowered sixth degree, which is used in the bass.

15. The German Augmented Sixth chord may be built on another scale degree other than the raised fourth degree in order to create remote modulations.

16. The German Augmented Sixth chord is an enharmonic equivalent of a four-note dominant seventh chord of the Neapolitan.

WORKBOOK

Chapter 32:
German Augmented Sixth Chord: Selected Listening Examples

Selected compositions including German Augmented Sixth chords

Johann Sebastian Bach (1685-1750)

1. Mass in B Minor, Credo: Crucifixus.

N. Louise Wright (?)

1. Waltz in B Flat Major, Op. 32, (Piano Piece, Measure 23).

Max Bruch (1838-1920)

1. Violin Concerto, Op. 26, First Movement, (Measure 3).

Wolfgang Amadeus Mozart (1756-1791)

1. Piano Sonata in F Major, K. 332, First Movement, (Measures 35 and 36, approximately 1782-1783).
2. Overture to Don Giovanni, K. 527, (Opera, 1787).
3. Piano Sonata in C Major, K. 545, Second Movement, (Measure 43, Beat 3).
4. Fantasia and Sonata in C Minor, No. 18, K. 475, Adagio, (Measure 1).
5. Piano Sonata in D Major, K. 576, Second Movement.

Chapter 32: German Augmented Sixth Chord: Selected Listening Examples (continued)

Ludwig van Beethoven (1770-1827)

1. Piano Sonata No. 1 in F Minor, Op. 2, First Movement, (Measures 140 and 142, 1795?).
2. Piano Sonata No. 8 in C Minor, Op. 13, First Movement, (Measures 17 and 18, 1797-1798).
3. Piano Sonata No. 8 in C Minor, Op. 13, Third Movement, (Measures 6 and 185, 1797-1798).
4. Piano Sonata, "Appassionata", Op. 57, Second Movement.

Franz Schubert (1797-1828)

1. Der Doppelganger from Schwanengesang, D. 957, (Lied for Voice and Piano, Measures 41 and 51, 1828).

Robert Schumann (1810-1856)

1. Vogel Als Prophet from Waldszenen, Op. 82, (Piano Character Piece, Measure 24, 1848-1849).

Frederic Chopin (1810-1849)

1. Prelude in E Minor, Op. 28, No. 4, (Measure 23, 1836-1839).
2. Mazurka in B Flat Major, Op. 7, No. 1, (Measures 45 through 51, 1830-1831).
3. Mazurka in A Minor, Op. 7, No. 2, (Measure 17, 1830-1831).
4. Scherzo in B Minor, Op. 20.

Cesar Franck (1822-1890)

1. Chorale No. 1 in E Minor for Organ, Moderato, (Measures 7, 8, 12, and 45).
2. Symphony in D Minor, Movement One.

Joseph "King" Oliver (1885-1938)

1. West End Blues, (Blues Song for Voice and Piano, Measures 28 and 36, 1928).

WORKBOOK

Chapter 33:
German Augmented Sixth Chord: Analyses

Analyses of selected compositions including German Augmented Sixth chords

Overture to Don Giovanni, K. 527, by Wolfgang Amadeus Mozart (1756-1791)

The orchestral Overture that prepares the mood and atmosphere for Mozart's Opera Don Giovanni includes a traditional example how the German Augmented Sixth chord resolves to a minor tonic six-four chord. In the example below in D minor, beat 1 includes a first inversion subdominant chord, G minor. This example also demonstrates how well the minor subdominant can function as a preparatory chord for the German Augmented Sixth chord, since it has two common notes. The subdominant's minor third and perfect fifth are, respectively, the diminished third and diminished fifth of the G sharp German Augmented Sixth chord. Furthermore, when the root of the subdominant is raised chromatically one half step, the root of the German Augmented Sixth is formed. Hence, both the subdominant and German Augmented Sixth chords share the same letter name from the fourth degree, respectively, G natural (the fourth degree) and G sharp (the raised fourth degree). In addition, the subdominant and the augmented sixth chords in general are pre-dominant sonorities, regardless if a tonic six-four chord interrupts them. These similar characteristic elements explain why a subdominant precedes smoothly to an augmented sixth chord.

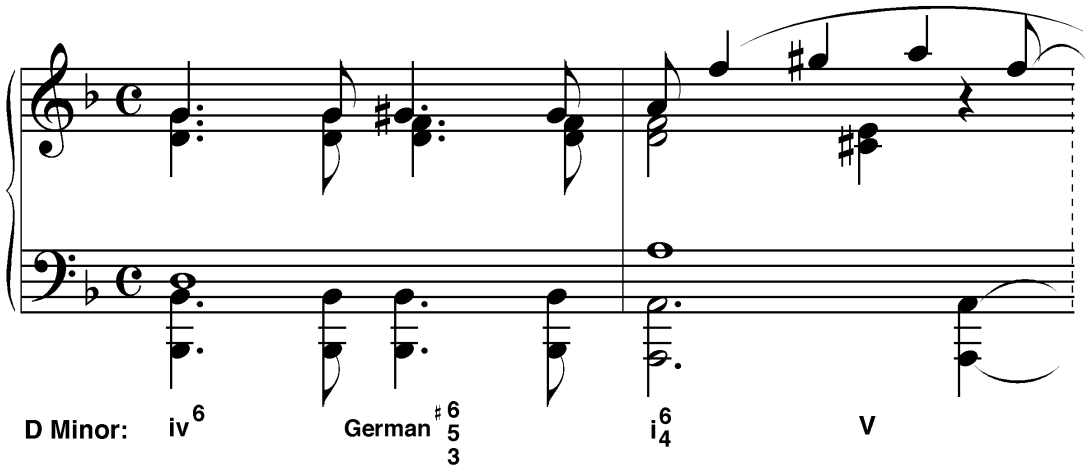
The primary purpose of this example, however, is to show how a German Augmented Sixth chord precedes a minor tonic six-four chord. After the minor subdominant on beats 1 and 2, the German Augmented Sixth chord enters on beats 3 and 4. It resolves to a minor tonic six-four chord across the barline on beat 1. In beat 3, the tonic six-four chord progresses to its dominant, which supports the key.

As discussed, the minor subdominant, G minor, shares two tones in common with four of the German Augmented Sixth chord's tones. With the German Augmented Sixth chord in first inversion, the augmented sixth, B flat in the bass and G sharp in the upper voice, resolves in contrary motion to the fifth of the minor tonic six-four chord. The D natural (the diminished fifth) and F natural (the diminished seventh) of the German Augmented Sixth chord remain as the root and third, respectively, of the minor tonic six-four chord. The two common tones found between both chords explain why this progression is so often preferred in minor keys.

Chapter 33: German Augmented Sixth Chord: Analyses
(continued)

Overture to Don Giovanni, K. 527, by Wolfgang Amadeus Mozart (1756-1791)

Example 1:



Chapter 33: German Augmented Sixth Chord: Analyses
(continued)

Prelude in E Minor, Op. 28, No. 4, (Measure 23, 1836-1839), by Frederic Chopin (1810-1849)

The Preludes of Frederic Chopin may be considered as a quintessential aphorism of such genres. Imitating Bach's Well-Tempered Clavier, Chopin also composed a Prelude for each of the 24 keys. Unlike Bach, who wrote each Prelude and Fugue in each key in the order of the chromatic scale as well as composing one in a major key followed by one in the parallel minor, Chopin approached it slightly differently. Chopin composed his Preludes as autonomous miniature etudes. Hence, a Prelude by Chopin was not accompanied by a Fugue. Chopin also ordered his Preludes by way of the circle of fifths, rather than the chromatic scale. As did Bach, he also wrote each Prelude in a major and minor key; however, Chopin used the relative minor keys instead of the parallel minor keys. For example, Chopin's Prelude No. 1 is in C major while Prelude No. 2 is in A minor, its relative minor. Unlike Bach who would proceed chromatically up the scale for the next Prelude and Fugue, Chopin would progress through the circle of fifths. Therefore, Prelude No. 3 was written in G major and Prelude No. 4 in E minor, and so on.

Nonetheless, in Chopin's Prelude No. 4 in E minor, its descending chromatic line in one or two voices with each chord change creates an equivocal atmosphere in E minor. In addition to the cadence at the end and the ana crusis with the opening B natural octave, the dominant, resolving to a first inversion E minor triad in bar 1, there is only one other section in the middle of the work where Chopin reinforces the key. At bars 12 and 13, Chopin diatonically reinforces the key of E minor by resolving the B dominant seventh chord to a first inversion tonic triad. Although in bar 20 there is another B dominant seventh chord to reinforce the key, its resolution is deceptive. Rather than resolving to the home key, it resolves deceptively to the major submediant triad, C major in bar 21. In beat 2 of bar 21, the harmonies continue to descend chromatically in various voices, and finally the phrase comes to a cadence on a German Augmented Sixth chord in root position at bar 23. The sound of the cadence insinuates an implied half cadence. After a fermata rest, Chopin resolves the German Augmented Sixth chord to a dominant triad with a doubled E natural, serving as a suspended fourth or appoggiatura, which resolves down by step to the third of the dominant triad in the following beat. The dominant triad, with its triple root, resolves in the final measure to its tonic, a root position E minor triad, providing final closure to the work.

The most strikingly innovative and different use of the German Augmented Sixth chord in Chopin's Prelude No. 4 is that he uses it as a pseudo half cadence at bar 23. Rather than resolving the German Augmented Sixth chord immediately as a pre-dominant sonority, Chopin cadences on the augmented chord followed by a fermata rest! Its delayed resolution after a long silence is strikingly provocative. In addition, Chopin departs from tradition by using the augmented sixth chord in root position as well. Because of its root position, the interval between the raised fourth degree in the bass and the diatonic sixth degree above it is a diminished third, which is the inversion of the augmented sixth. Nonetheless, Chopin does traditionally resolve the raised fourth degree and diatonic sixth degree in contrary motion to the root of the dominant. The diminished third, A sharp in the bass and the C natural above, converge to B natural, the root of the dominant in the following beat.

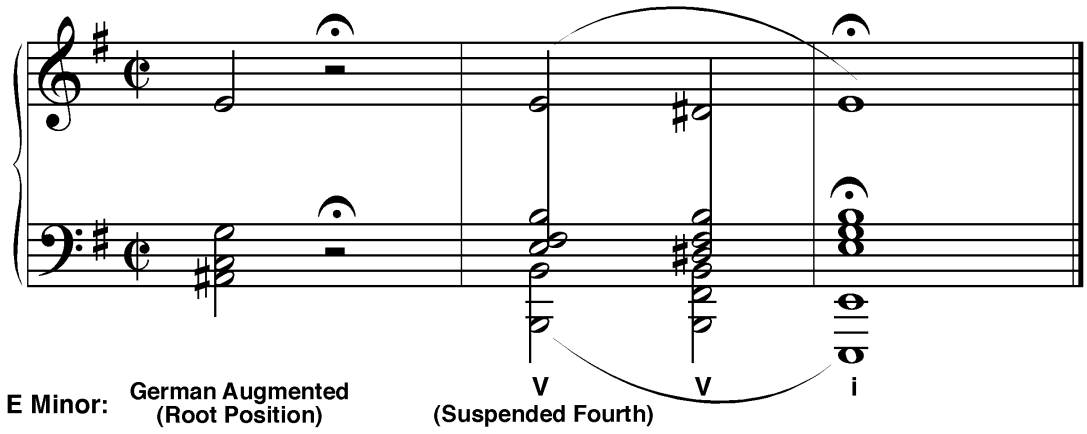
At first glance, however, the delayed resolution of the German Augmented Sixth chord can be misinterpreted. The B dominant triad in bar 24, beat 1, is sometimes recognized as an E minor tonic six-four chord with its doubled fifth in the bass, doubled root above, and added ninth. Considering that a German Augmented Sixth chord's common resolution is to a minor tonic six-four chord, it can easily be recognized as such a progression between bars 23 and 24. However, when one looks more closely, the third of the tonic six-four chord is missing with an added ninth in its place. The chord is like an "implied" tonic six-four chord with an added ninth in lieu of its minor third. However, by scrutinizing the harmony further and listening to its sound, it becomes more obvious that one's original analysis is inaccurate. The more accurate analysis of the German Augmented Sixth chord's provocative resolution is to a dominant triad in root position with a suspended four. The two E naturals serve as an appoggiatura or an articulated suspended fourth of the B dominant triad, which resolves down by half step to its major third in the following beat. Therefore, Chopin heightens the tension and ambiguity of the German Augmented Sixth chord's resolution not only through its pseudo half cadence and fermata rest, but also by the appoggiatura which creates the sound of a dominant triad with an articulated four-three suspension. The suspended fourth resolves to a dominant triad with a triple root in the last beat of the penultimate bar. Its resolution to a root position E minor triad in the final bar definitively ends the work and emphatically reinforces the key.

In the example below, notice the parallel fifths in the inner voices where the root position German Augmented Sixth chord resolves to the dominant with the suspended fourth. Although most 19th and 20th century composers did not share the same aversion toward parallel fifths and octaves as 17th and 18th century composers, Chopin's parallel fifths are somewhat obscured by the long fermata rest and by including a suspended fourth in the dominant chord. Regardless if Chopin's intentions were deliberate, the unorthodox resolution weakens and masks the parallel fifths making it less obvious to even the avid listener

As a footnote, with some editions, the cadence with the German Augmented Sixth chord is enharmonically respelled as a C dominant seventh chord in third inversion. In other words, the root, A sharp of the German Augmented Sixth chord, is enharmonically respelled as B flat, the minor seventh of the C dominant seventh chord. Although one can speculate the reason for the alteration, it is uncertain why some editions chose the C dominant seventh chord in third inversion in lieu of the German Augmented Sixth chord. However, considering its key and resolution, it is unequivocal that the chord at bar 23, regardless of its spelling, functions as a German Augmented Sixth chord rather than a C dominant seventh chord in third inversion.

Prelude in E Minor, Op. 28, No. 4, (Measure 23, 1836-1839), by Frederic Chopin (1810-1849)

Example 2:



Chapter 33: German Augmented Sixth Chord: Analyses (continued)

Waltz in B Flat Major, Op. 32, by N. Louise Wright.

This beautiful Waltz in ternary form demonstrates how composers can avoid parallel fifths when resolving a German Augmented Sixth chord to a dominant. As discussed earlier, most composers will substitute the German Augmented Sixth chord right before its resolution to the dominant with another chord, generally with the Italian Augmented Sixth chord.

N. Louise Wright cleverly, in the penultimate measure before the half cadence in G minor, employs all three augmented sixth chords. The B section of the Waltz in B Flat Major is in a new key, G minor, the relative minor of the original key. In bar 23, beat 1, the German Augmented Sixth chord is introduced and immediately followed by the French and Italian Augmented Sixth chords in beats 2 and 3, respectively. By placing the Italian Augmented Sixth chord in beat 3 as a substitute for the previous German Augmented Sixth chord in beat 1, the composer avoids the weak parallel fifths when it resolves to the dominant triad of G minor in the following measure.

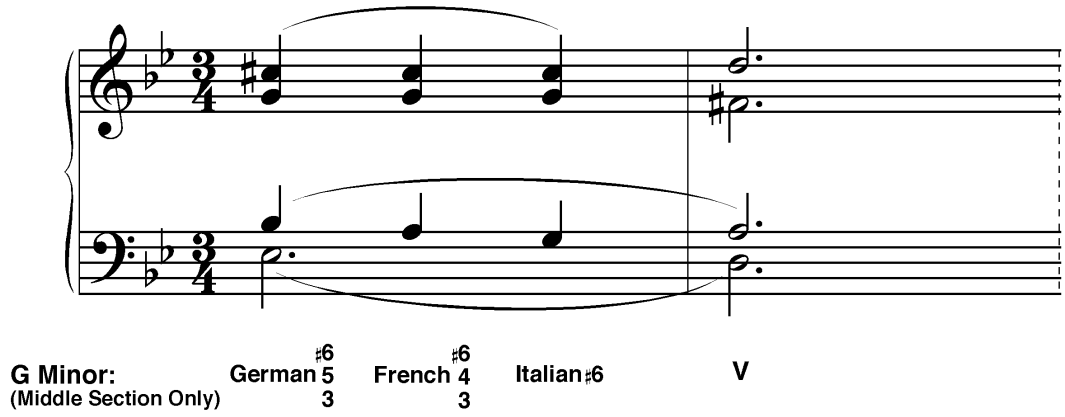
In the example below, measure 23 includes the German Augmented Sixth chord in first inversion. The tritone in the treble clef, C sharp and below it G natural, is articulated in all three beats. The C sharp is the raised fourth degree of the new key G minor serving as the root of the German Augmented Sixth chord. The tonic note G natural is just below, serving as the diminished fifth of the chord. In the left-hand part, the diatonic sixth degree of G minor, E flat, is in the bass, serving as the diminished third of the chord. Above the E flat in the bass is a B flat in the tenor voice, serving as the diminished seventh. All four tones constitute a German Augmented Sixth chord.

However, in beat 2, the German Augmented Sixth chord is abandoned. By having the B flat in the tenor voice of the left-hand part in beat 1 progress down a half step to A natural in beat 2 creates the French Augmented Sixth chord. It is the new note, A natural, which becomes the new root of the French Augmented Sixth chord. But it is short lived when the A natural descends a whole step to G natural in beat 3. With the G natural already in the alto voice, the G natural is doubled (the tonic note of the new key), which creates the Italian Augmented Sixth chord. As discussed earlier, in a four-part voicing of an Italian Augmented Sixth chord, it is best to double the tonic note.

By including the Italian Augmented Sixth chord in beat 3 before its resolution to the dominant avoids the parallel fifths, which would have been obvious had the German Augmented Sixth chord preceded the dominant. Whether or not the composer cognitively and shrewdly presented all three augmented sixth chords in succession in order to avoid the parallel fifths is unknown. However, theoretically and aesthetically the progression works!

Waltz in B Flat Major, Op. 32, by N. Louise Wright.

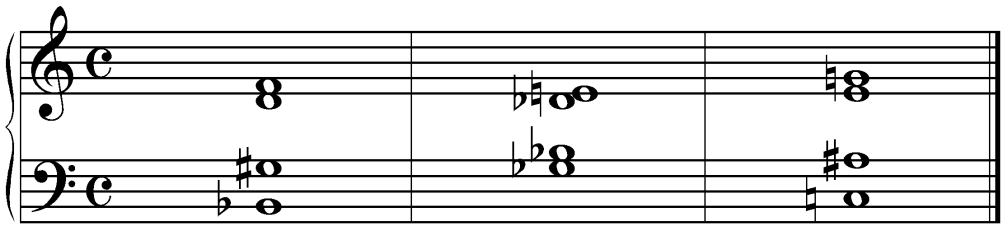
Example 3:



WORKBOOK

Chapter 34:
German Augmented Sixth Chord: Exercises

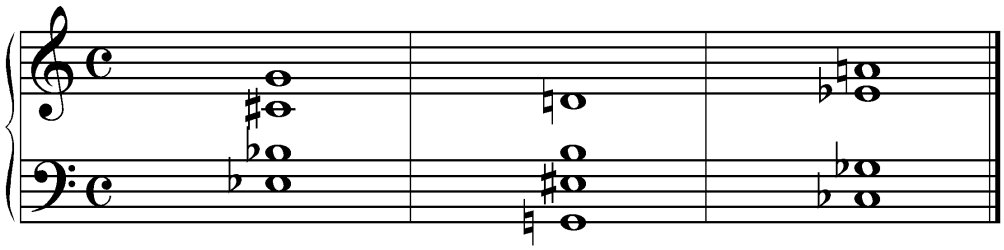
Identify the following German Augmented Sixth chords and their respective key



German ♯6 5
Key:

German ♯6 5
Key:

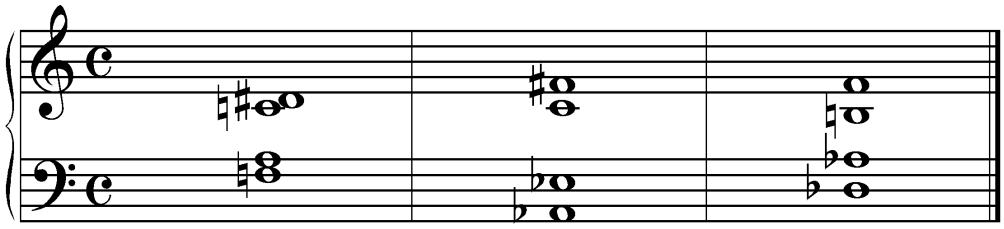
German ♯6 5
Key:



German ♯6 5
Key:

German ♯6 5
Key:

German ♯6 5
Key:



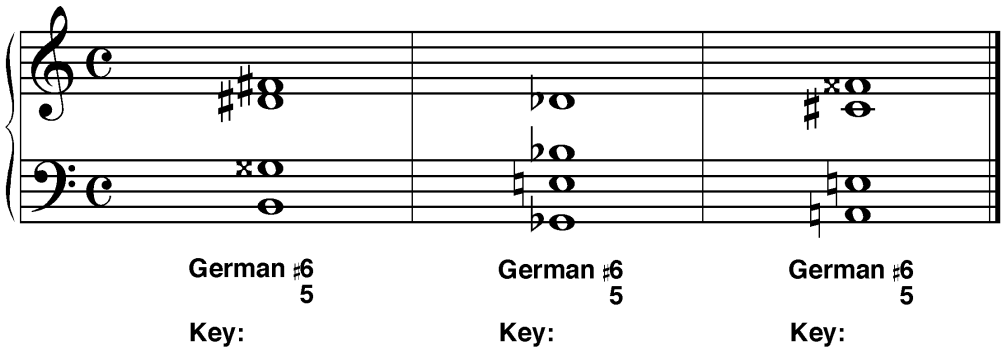
German ♯6 5
Key:

German ♯6 5
Key:

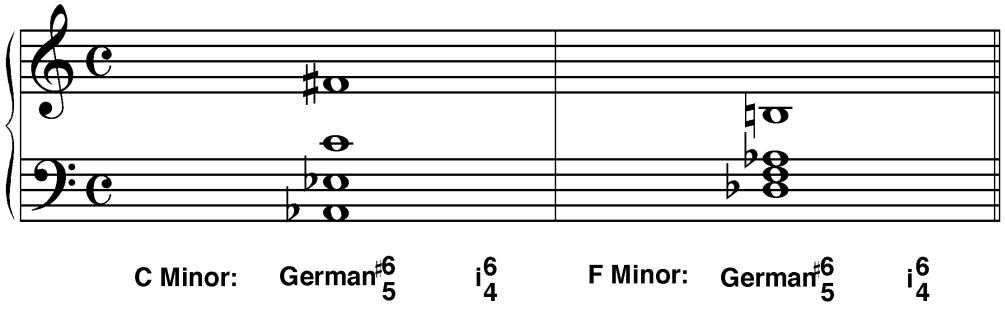
German ♯6 5
Key:

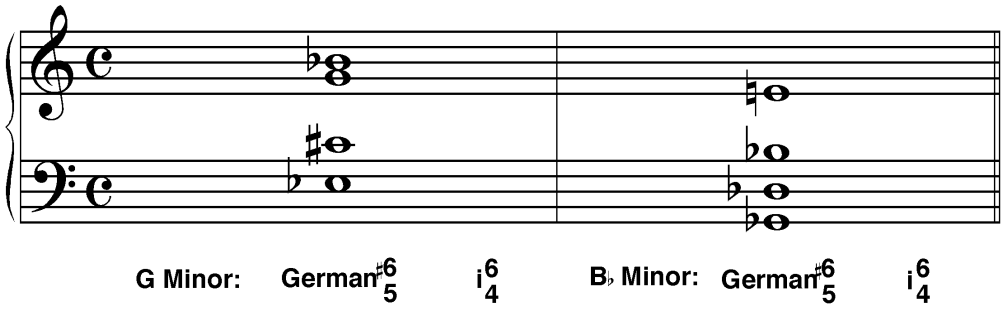
Chapter 34: German Augmented Sixth Chord: Exercises
(continued)

Identify the following German Augmented Sixth chords and their respective key (continued)



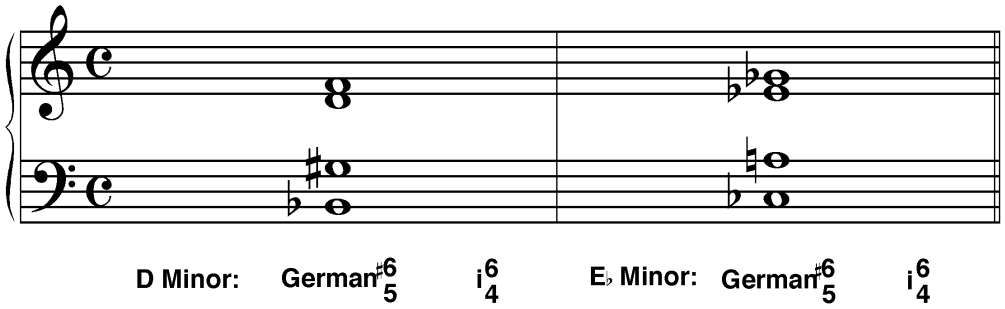
Resolve the following German Augmented Sixth chords

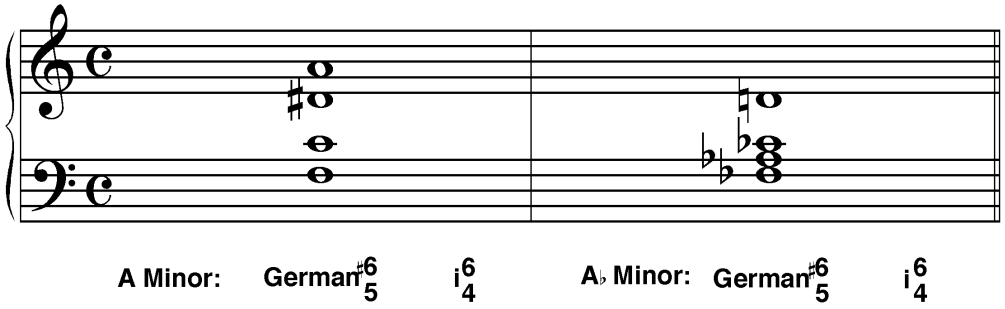


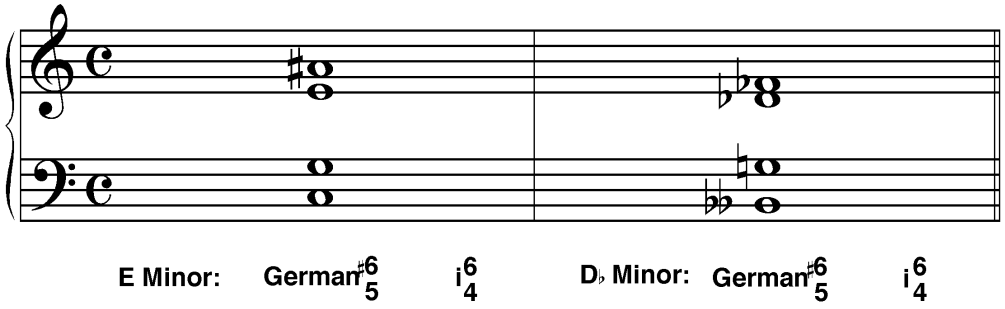


Chapter 34: German Augmented Sixth Chord: Exercises (continued)

Resolve the following German Augmented Sixth chords (continued)

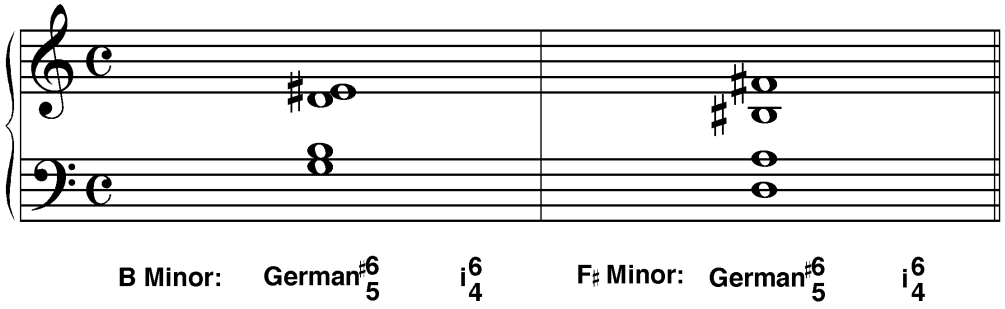


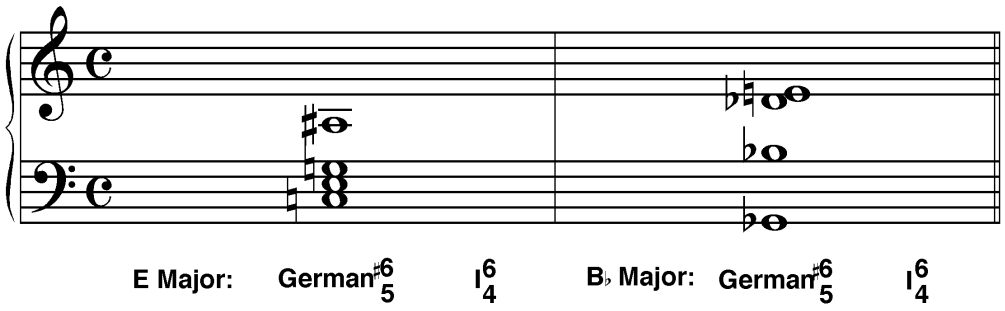


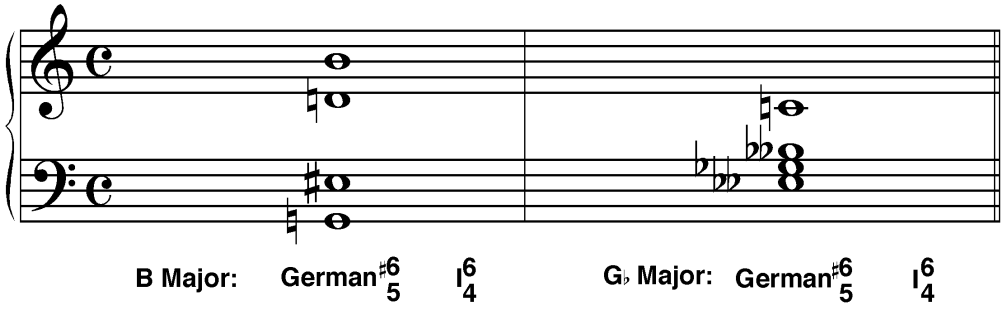


Chapter 34: German Augmented Sixth Chord: Exercises (continued)

Resolve the following German Augmented Sixth chords (continued)

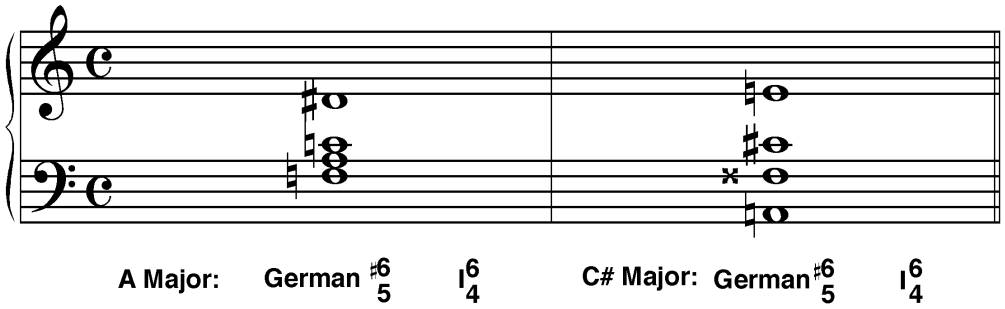


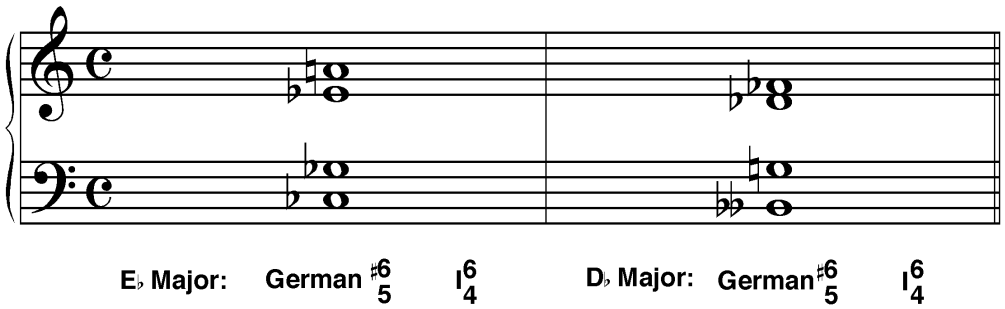




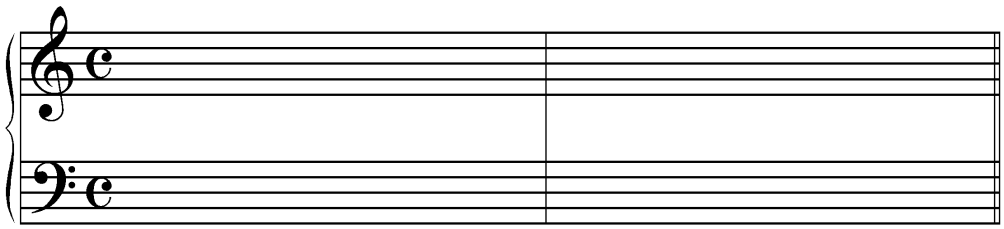
Chapter 34: German Augmented Sixth Chord: Exercises (continued)

Resolve the following German Augmented Sixth chords (continued)

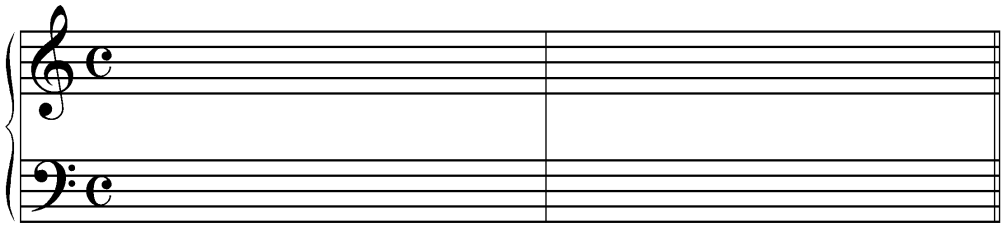




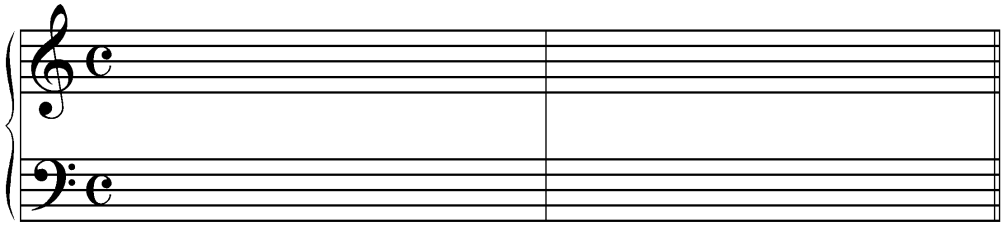
Create a four-part German Augmented Sixth chord for the following keys



C Minor: German $\frac{\sharp 6}{5}$ **F Minor:** German $\frac{\sharp 6}{5}$

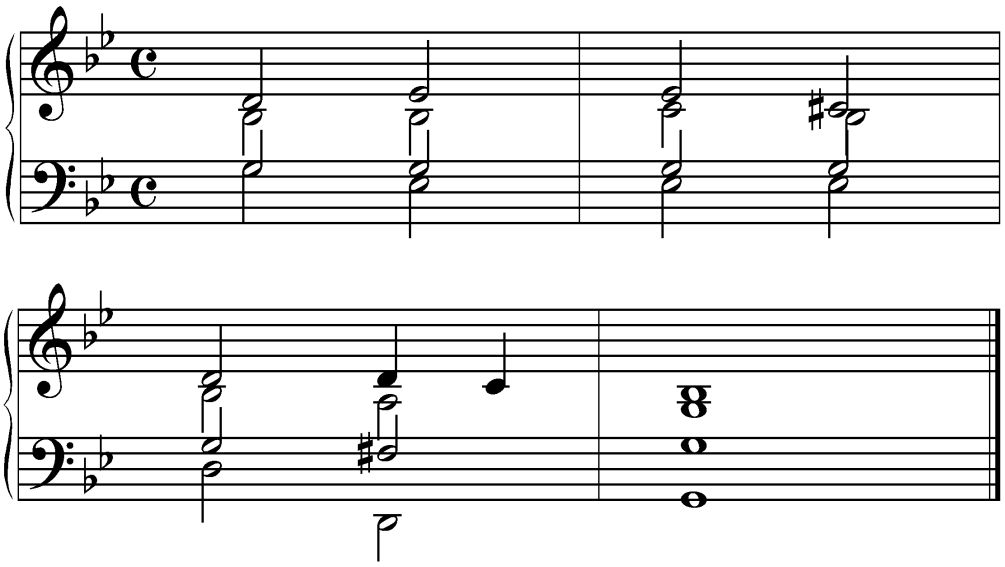


A Minor: German $\frac{\sharp 6}{5}$ **D Minor:** German $\frac{\sharp 6}{5}$

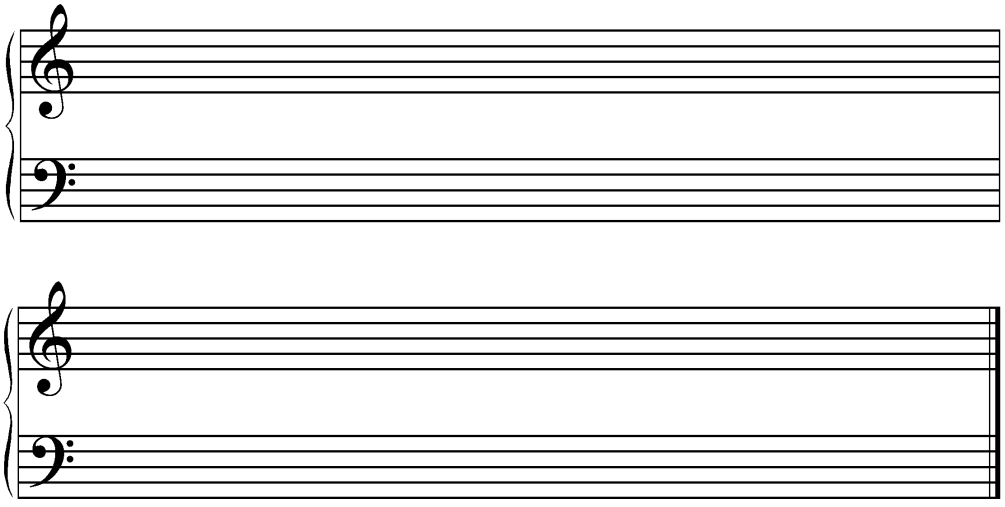


C♯ Minor: German $\frac{\sharp 6}{5}$ **F♯ Minor:** German $\frac{\sharp 6}{5}$

Analyze the four-part chorale including a German Augmented Sixth chord



Create a four-part chorale including a German Augmented Sixth chord (minimum four measures)



WORKBOOK

Chapter 35:
French Augmented Sixth Chord: A Review

Important facts to remember: A review

1. As with the German and Swiss Augmented Sixth chords, the French Augmented Sixth chord consists of four tones.

2. The same three tones of an Italian Augmented Sixth chord which includes a raised fourth degree, lowered sixth degree, and the tonic note of the major scale, are also used as part of the intervallic structure of a French Augmented Sixth chord. However, the French Augmented Sixth chord includes a fourth tone. The added member of the French Augmented Sixth chord is its new root, based on the diatonic second degree of the scale. When in second inversion, its newest member (the root) is an augmented fourth above the bass note (the lowered sixth degree in major or the diatonic sixth degree in minor).

3. Based on tertian harmony, the raised fourth degree of the French Augmented Sixth chord is **not** the root of its chord. Instead, the diatonic second degree of the scale is the root of the French Augmented Sixth chord. For example in C major, a French Augmented Sixth chord in root position is: D natural, F sharp, A flat, and C natural. Above the root of a French Augmented Sixth chord, it includes a major third, diminished fifth, and minor seventh.

4. In second inversion, the French Augmented Sixth chord includes in its intervallic structure two augmented fourths. For example in C major, a French Augmented Sixth chord in second inversion is: A flat, C natural, D natural, and F sharp. The two augmented fourths are between A flat and D natural as well as C natural and F sharp.

5. In a four-part setting, the French Augmented Sixth chord must employ all four tones. Without its root, it becomes an Italian Augmented Sixth chord.

6. Unlike the other three augmented sixth chords, the French Augmented Sixth chord has more options in its resolution. A French Augmented Sixth chord resolves equally to either a dominant chord or a major or minor tonic six-four chord.

7. The French Augmented Sixth chord is often found in second inversion. As with the other augmented sixth chords, the lowered sixth degree in major or the diatonic sixth degree in minor is often employed in the lowest voice. Unlike the Italian and German Augmented Sixth chords, where the bass note is a diminished third of the chord, with the French, it is a diminished fifth.

8. Because the root of the French Augmented Sixth chord is based on the diatonic second degree of the scale, it resembles a secondary dominant seventh chord of the dominant with a flat fifth. Unlike the other augmented sixth chords, only the French has this characteristic resemblance to the altered supertonic.

Chapter 35: French Augmented Sixth Chord: A Review
(continued)

9. Unlike the Italian and German Augmented Sixth chords which share a raised fourth degree as root of their chord, the French and Swiss Augmented Sixth chords do not. Although the French and Swiss have three tones in common with the Italian and German, they do not have the raised fourth degree as root. As mentioned above, the French Augmented Sixth chord has a root based on the diatonic second degree. The Swiss Augmented Sixth chord, which shares a similar resemblance, has a root based on the raised second degree. Therefore, the French and Swiss Augmented Sixth chord share a root based on the second degree; the French based on the diatonic second degree and the Swiss based on the raised second degree.

10. If one chromatically lowered the tone that is a perfect fifth above the bass note of a first inversion German Augmented Sixth chord, a French Augmented Sixth chord would result.

11. As with the other three augmented sixth chords, the French Augmented Sixth chord functions as a pre-dominant sonority.

12. The French Augmented Sixth chord is recognized as a secondary dominant seventh of the dominant with a flat fifth degree, an altered supertonic seventh chord. Its function is very similar to the V7/V.

13. As with the other augmented sixth chords, the second inversion French Augmented Sixth chord includes an augmented sixth between its lowest voice and one of its upper voices. The resolution of the augmented sixth interval is outward to a doubled fifth of the tonic six-four chord or to a doubled root of the dominant.

14. When using a figured bass, the indication for the French Augmented Sixth chord in second inversion is #6 or Fr. #6.

    4 4.
    3 3.

15. The French Augmented Sixth chord is used in major or minor keys.

16. The French Augmented Sixth chord may be built on a scale degree other than the diatonic second degree of the scale in order to create remote modulations.

17. Unlike the Italian, German, and Swiss Augmented Sixth chords that are enharmonic equivalents of a dominant seventh chord of the Neapolitan, the French Augmented Sixth chord, regardless of its spelling, functions as a secondary dominant of the dominant with a flat fifth.

18. The French Augmented Sixth chord has an intervallic structure which includes two tritones; therefore, it can be completed as a whole-tone scale with the addition of two more tones between its superimposed thirds.

WORKBOOK

Chapter 36:
French Augmented Sixth Chord: Selected Listening Examples

Selected compositions including French Augmented Sixth chords

Franz Schubert (1797-1828)

1. Longing, (Piano Character Piece. Measure 13).
2. Der Doppelganger from Schwanengesang, D. 957, (Song for Voice and Piano, Measure 32. 1828).
3. String Quartet, Op. 125, No. 1, Movement IV.

Ludwig van Beethoven (1770-1827)

1. Piano Sonata No. 8 in C Minor, Op. 13, Third Movement, (Measures 10 and 46. 1797-1798).
2. Piano Sonata No. 4 in E Flat Major, Op. 7, Second Movement, (Measures 73 and 77. 1796-1797?).

Hugo Wolf (1860-1903)

1. Tramping, (Song for Voice and Piano. Measure 21).
2. Das Verlassene Magdlein, (Song for Voice and Piano. Measure 11. 1888).

Henri Wieniawski (1835-1880)

1. Violin Concerto, Op. 22, Finale, (Measure 1).

Clara Schumann (1819-1896)

1. Andante Espressivo, No. 3 from Quatre Pieces Fugitives, Op. 15, (Piano Character Piece, Measure 20. Published 1845).

Chapter 36: French Augmented Sixth Chord: Selected Listening Examples (continued)

Frederic Chopin (1810-1849)

1. Prelude in C Minor, Op. 28, No. 20, (Measures 6 and 10. 1836-1839).

2. Nocturne in A Major, Op. 48, No. 2.

Richard Wagner (1813-1883)

1. Prelude to Tristan und Isolde, (Measure 2. 1865).

Peter Tchaikovsky (1840-1893)

1. Waltz of the Flowers from the Nutcracker Suite, (Measure 15 from Piano Reduction).

Edvard Grieg (1843-1907)

1. Lyric Pieces for the Piano, "Secret", Op. 57, No. 4, (French Augmented Sixth of V: Measure 3, beat 2).

Frederick Loewe (Music) and Alan Jay Lerner (Words)

1. The Lusty Month of May from Camelot, (Measure 37. 1960-1961).

WORKBOOK

Chapter 37:
French Augmented Sixth Chord: Analyses

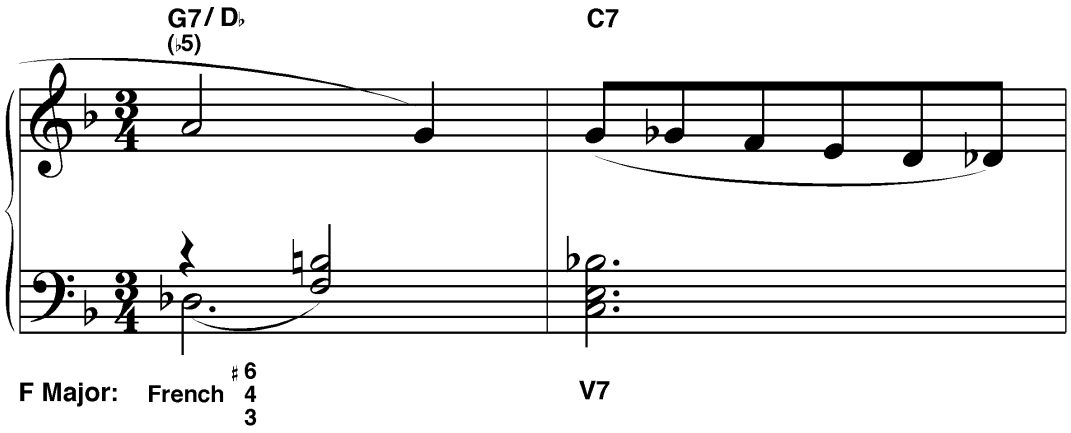
Analyses of selected compositions including French Augmented Sixth chords

Waltz of the Flowers from the Nutcracker Suite, by Peter Tchaikovsky (1840-1893).

In the penultimate measure of the first musical period of Tchaikovsky's Waltz of the Flowers, there is a French Augmented Sixth chord that resolves in the next measure to a C dominant seventh chord, creating a half cadence which segues to a recapitulation of the main theme in varied form.

Often the French Augmented Sixth chord resolves to either a tonic six-four chord or dominant. However, in this example, it resolves to a dominant seventh chord. In the measure before the half cadence, the French Augmented Sixth chord is not complete until beat 3, since the first two beats are occupied by a nonharmonic tone. The tone A natural in the melody is a long appoggiatura which resolves down by step to the root of the French Augmented Sixth chord.

Example:



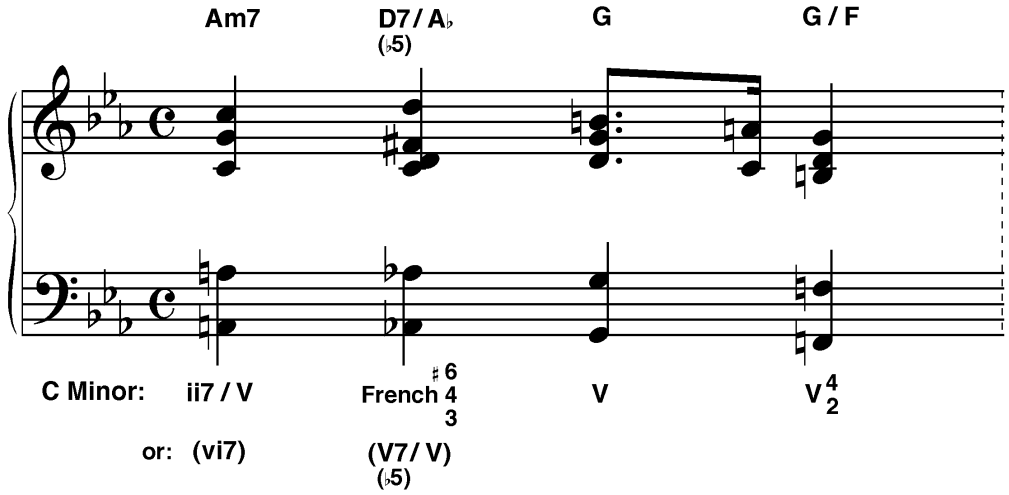
Prelude in C Minor, Op. 28, No. 20, (1836-1839), by Frederic Chopin (1810-1849).

Traditionally, the augmented sixth chord is used as a cadential chord to prepare the entrance of the dominant. Chopin, however, used the French Augmented Sixth chord, instead, as a passing chromatic harmony.

Beginning with measure 5, the descending chromatic bass line in octaves is very apparent with a clear melody above the blocked harmonies, creating a homophonic texture. At bar 6, and again verbatim at bar 10, Chopin includes a French Augmented Sixth chord in second inversion on beat two resolving to a root position dominant chord in beat 3.

The diatonic sixth degree (A flat) of C minor is in octaves in the left-hand part and resolves in parallel motion to the doubled root of the dominant, also in octaves. During the Romantic period, there was less aversion to parallel octaves, and to some degree to parallel fifths than during the previous periods. In the right hand part, the lowest note is the tonic note, C natural, serving as the minor seventh. Immediately above the C natural is the root, D natural (the diatonic second degree), in octaves. In between the octave root is the raised fourth degree of the scale, F sharp, serving as the major third of the chord. The raised fourth degree in the inner voice resolves appropriately to the root of the dominant in contrary motion to the bass. As for the octave root, D natural, the lowest one is retained as a common tone, the fifth of the dominant, while the higher one, functioning as the melody, descends a minor third to the dominant's third. The minor seventh, C natural, does not resolve traditionally down by step to the third of the dominant in the following beat. Its resolution to the third of the dominant is delayed until beat 4.

Example (Measure 6):



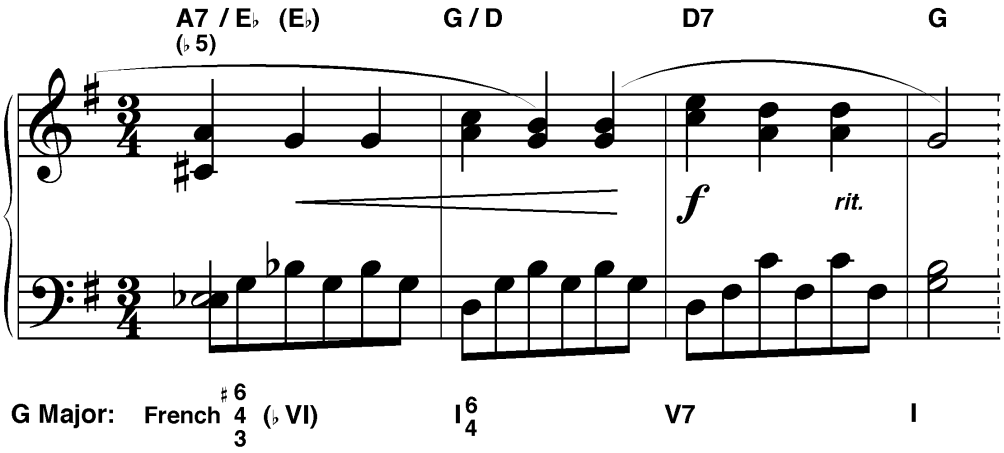
Longing, (Piano Character Piece), by Franz Schubert (1797-1828)

Online is a short, simplified version of Schubert's piano character piece entitled "Longing". The example online includes a clear 16 bar binary form. In measure 13 of the second half of the binary section, a French Augmented Sixth chord is heard on beat 1. However, on beat 1 in measures 9 through 15, the melody includes an appoggiatura each time. Therefore, at measure 13, the A natural in the melody truly functions as an appoggiatura to the third of the E flat major triad in beats 2 and 3 (the flat submediant borrowed from the parallel minor). However, if we isolate this appoggiatura and analyze it with the other existing tones from beat 1, despite how brief, the A natural also serves as the root of the French Augmented Sixth chord. Therefore, the A natural, the second degree of G major, combined with C sharp, E flat, and G natural is the intervallic structure of a French Augmented Sixth chord in beat 1 of bar 13.

Immediately below the A natural in the right hand is C sharp. This tone harmonizes well with the A natural above and serves as the raised fourth degree of the G major scale and the augmented sixth to the bass note E flat. In the bass part of beat 1 are E flat and G natural, respectively, which complete the sound of the French Augmented Sixth chord. Although beats 2 and 3 abandon the French Augmented Sixth chord for an E flat major triad, the residual sound of its resolution of the augmented sixth from beat 1 is clear when the tonic six-four chord is presented in measure 14. Therefore, the resolution of the temporary French Augmented Sixth chord on beat 1 of measure 13 to a major tonic six-four chord is delayed and interrupted by another chord until the following measure.

In measure 14, the tonic six-four chord also includes an appoggiatura in its melody. The C natural and A natural in the upper voice serve as an appoggiatura to the third and root, respectively, in the following beat. The tonic six-four chord resolves appropriately to a dominant seventh chord in the following bar, again with a dyad as an appoggiatura in the upper voice. The piece concludes with a perfect authentic cadence when the dominant seventh resolves in the following bar to a root position tonic chord.

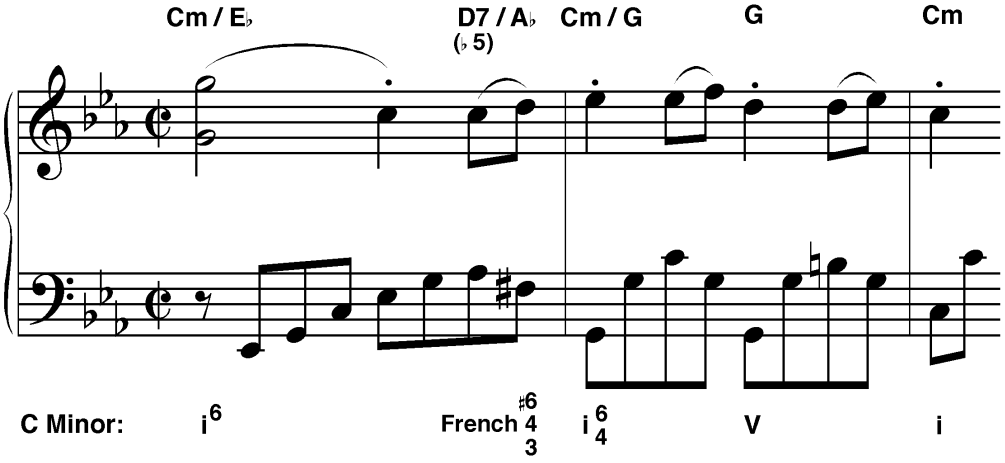
Example (Measures 13 -- 16):



Piano Sonata No. 8 in C Minor, Op. 13, Third Movement, (1797-1798), by Ludwig van Beethoven (1770-1827)

Because the French Augmented Sixth chord unfolds linearly in measure 10, it is not as obvious as the next French Augmented Sixth chord that is used as a blocked harmony in measure 46 [review second example]. In measure 10, a first inversion tonic triad is arpeggiated from beat 1 through the first half of beat 2. The last two eighth notes in beat 2 in both hands outline the four tones of a French Augmented Sixth chord. In the right hand, the first two eighth notes are C natural and D natural. Both notes serve as the minor seventh and root, respectively. In the left hand, the first eighth note is A flat, immediately followed by F sharp. These two tones are, respectively, the diatonic sixth degree and the raised fourth degree of C minor. They are, respectively, the flat fifth degree and major third of the augmented chord. The resolution of this linear French Augmented Sixth chord occurs across the bar-line in measure 11 to an arpeggiated minor tonic six-four chord. The second inversion C minor chord progresses to a root position dominant triad in beat 2, which resolves in measure 12 to the tonic triad on beat 1.

Example (Measures 10-12):



Chapter 37: French Augmented Sixth Chord: Analyses
(continued)

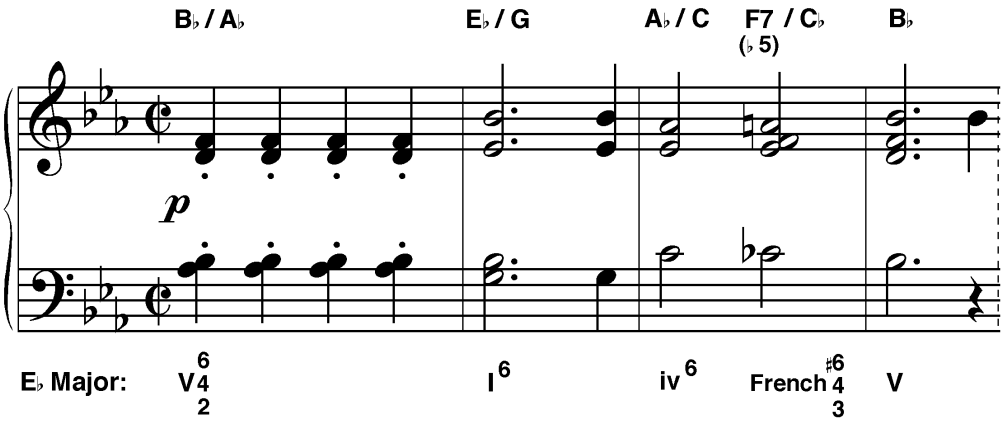
Piano Sonata No. 8 in C Minor, Op. 13, Third Movement, (1797-1798), by Ludwig van Beethoven (1770-1827)

The second French Augmented Sixth chord in the beginning of the third movement of the Pathetique Sonata by Beethoven is placed at measure 46, beat 2. It is easier to recognize it, because it is a blocked harmony. The interesting contrast to this French Augmented Sixth chord compared to the first one is that its root is based on a new key. At this point in the piece, Beethoven chose to modulate to E flat major, the relative major of C minor. Although the new key has already been established prior to the entrance of the French Augmented Sixth chord, the new augmented sixth chord in E flat major provides solidification of its new key.

The example below begins with a third inversion B flat dominant seventh chord in measure 44. It is articulated as a blocked chord four times. It resolves traditionally to its tonic triad in first inversion in measure 45. In bar 46, the first inversion subdominant, an A flat major triad, chromatically progresses to the French Augmented Sixth chord in beat 2. In the bass, the C flat is the lowered sixth degree of E flat major, while in the highest voice in the right hand, A natural is the raised fourth degree. Below A natural are two notes: F natural, the root of the chord (the second degree of E flat major), and the tonic note E flat. Unlike the first French Augmented Sixth chord which resolved to a minor tonic six-four chord, this augmented sixth resolves to a root position B flat dominant triad in the following bar. The arrival of the root position B flat dominant triad is a definitive half cadence in measure 47.

Although measures 48 and 49 are not included in the example below, immediately after the half cadence, Beethoven presents in measure 48 another third inversion B flat dominant seventh chord, which resolves to a first inversion tonic triad in bar 49.

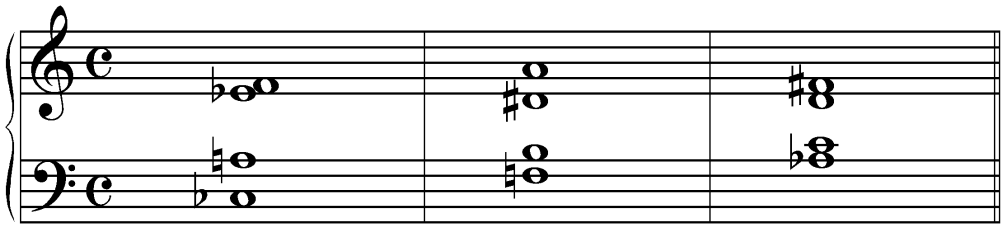
Example (Measures 44-47):



WORKBOOK

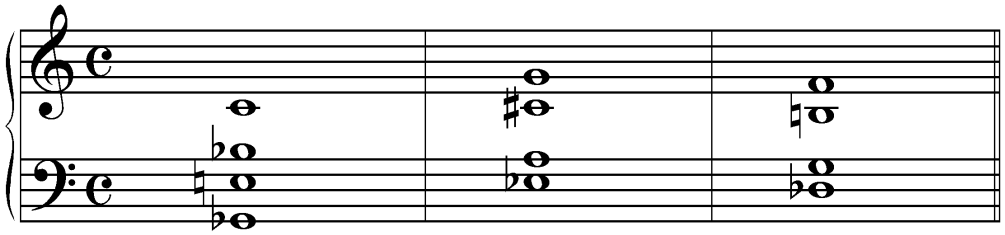
Chapter 38:
French Augmented Sixth Chord: Exercises

Identify the following French Augmented Sixth chords and their respective key



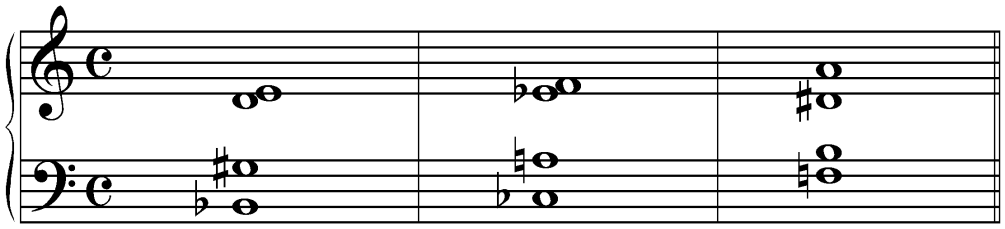
French $\frac{\sharp 6}{4}{}_{3}$ French $\frac{\sharp 6}{4}{}_{3}$ French $\frac{\sharp 6}{4}{}_{3}$

Key: Key: Key:

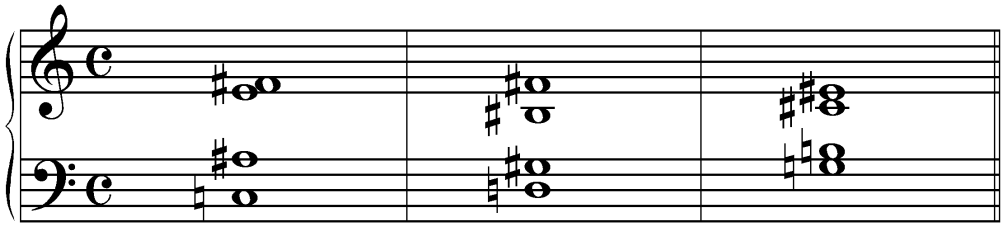


French $\frac{\sharp 6}{4}{}_{3}$ French $\frac{\sharp 6}{4}{}_{3}$ French $\frac{\sharp 6}{4}{}_{3}$

Key: Key: Key:

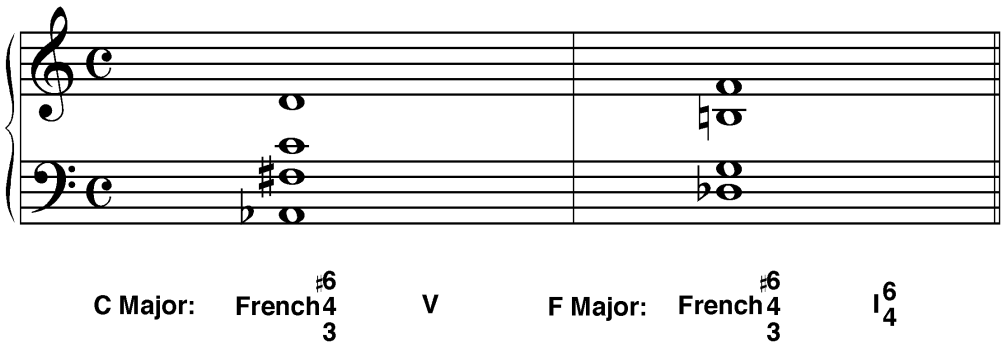


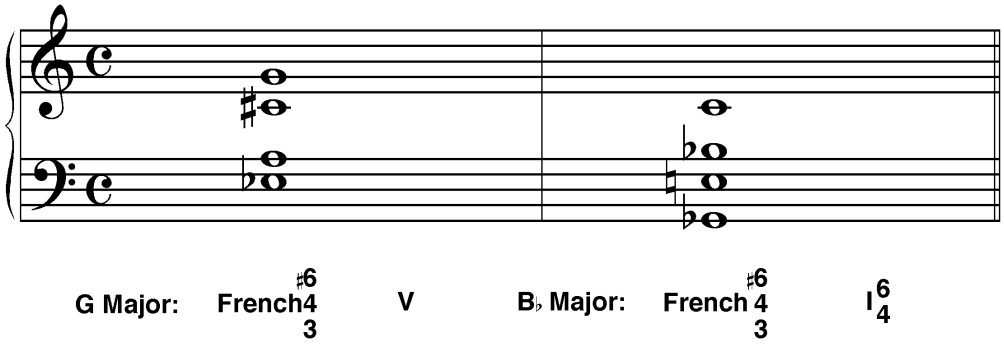
French ♯6 4 3	French ♯6 4 3	French ♯6 4 3
Key:	Key:	Key:

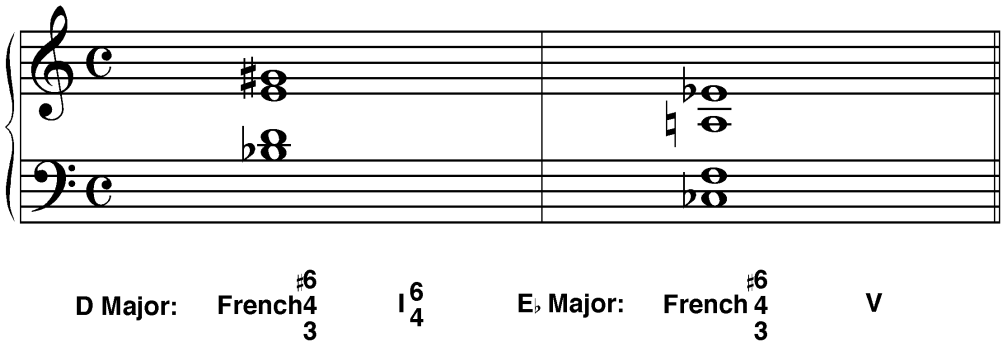


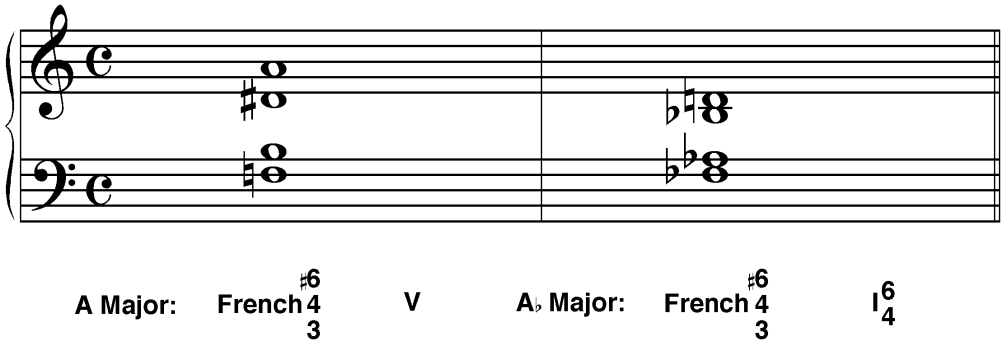
French ♯6 4 3	French ♯6 4 3	French ♯6 4 3
Key:	Key:	Key:

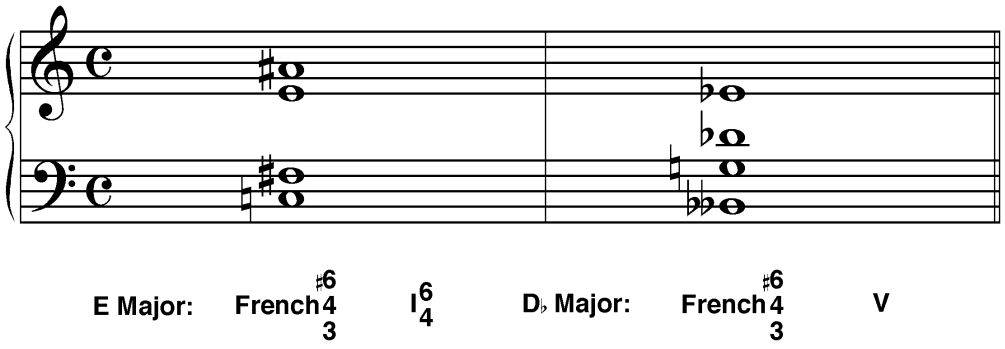
Resolve the following French Augmented Sixth chords

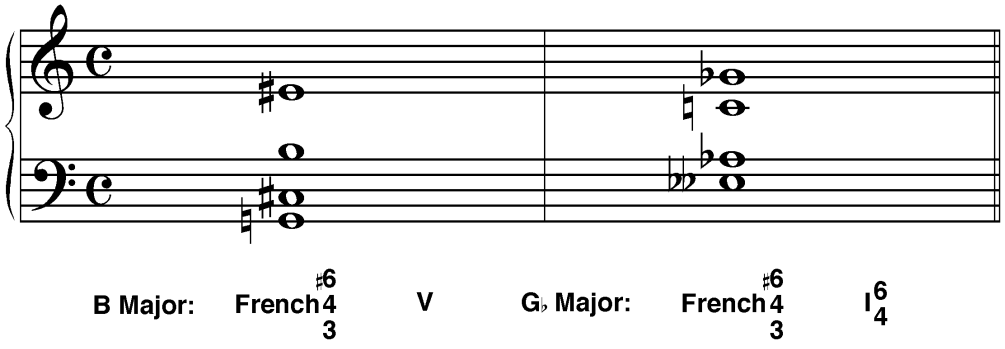




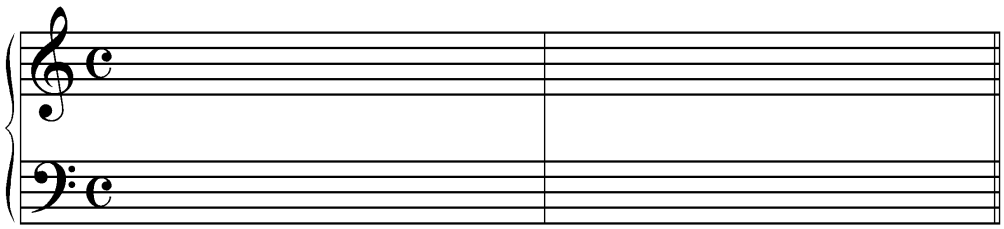

D Major: French ♯6 4 3
I 6 4
E♭ Major: French ♯6 4 3
V


A Major: French ♯6 4 3
V
A♭ Major: French ♯6 4 3
I 6 4


E Major: French ♯6 4 3 I 6 4
D♭ Major: French ♯6 4 3 V

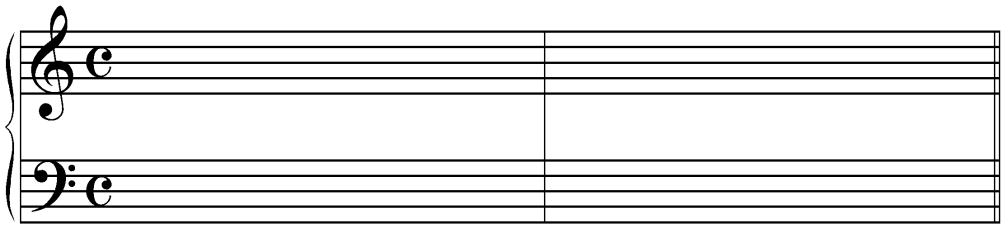

B Major: French ♯6 4 3 V
G♭ Major: French ♯6 4 3 I 6 4

Create a French Augmented Sixth chord for the following keys



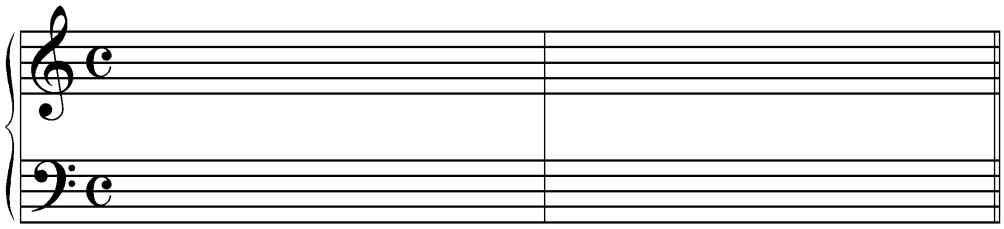
C Minor: French ♯6 4 3

F Minor: French ♯6 4 3



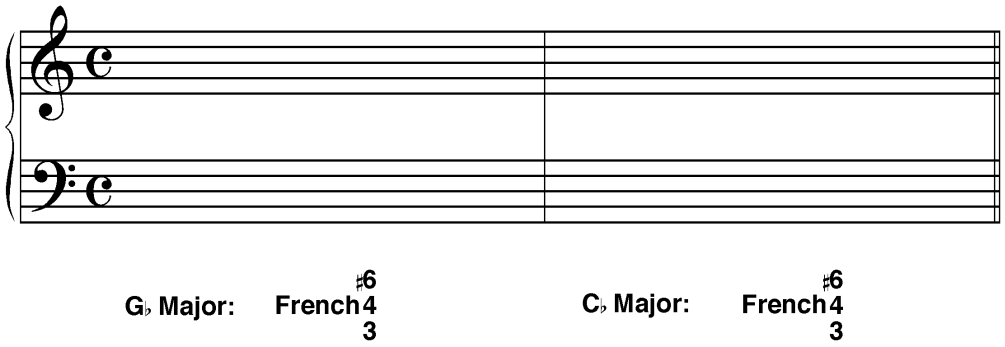
A Minor: French ♯6 4 3

D Minor: French ♯6 4 3

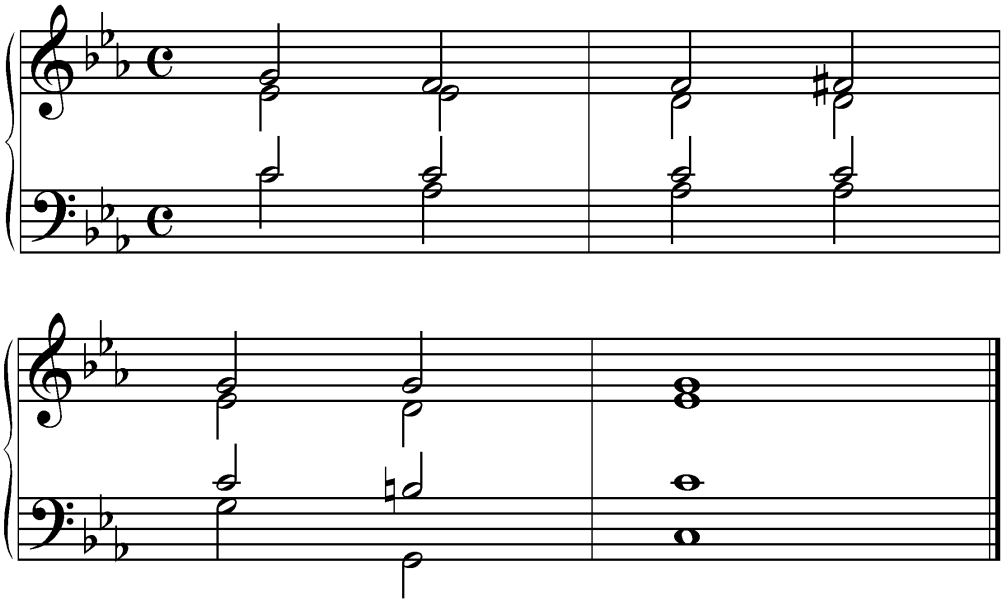


C♯ Major: French ♯6 4 3

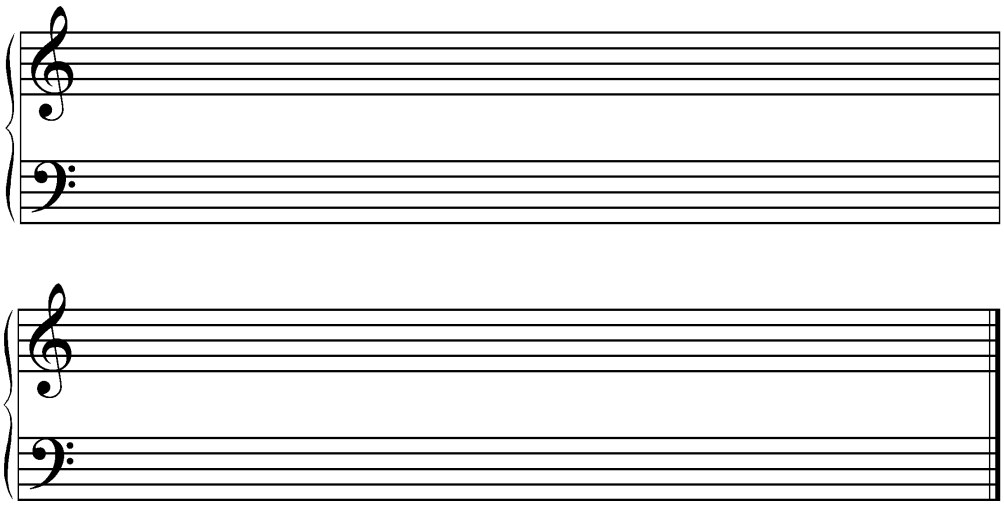
F♯ Major: French ♯6 4 3



Analyze the four-part chorale including a French Augmented Sixth chord



Create a four-part chorale including a French Augmented Sixth chord (minimum four bars)



WORKBOOK

Chapter 39:
Swiss Augmented Sixth Chord: A Review

Important facts to remember: A review

1. As with the German and French Augmented Sixth chords, the Swiss Augmented Sixth chord also consists of four tones.

2. In a four-part setting, the Swiss Augmented Sixth chord must employ all four tones.

3. The Swiss Augmented Sixth chord is the enharmonic equivalent of the German Augmented Sixth chord. In C major, a German Augmented Sixth chord in root position consists of F sharp, A flat, C natural, and E flat. The E flat, which is a diminished seventh from the root of a German Augmented Sixth chord, is enharmonically respelled as D sharp in a Swiss Augmented Sixth chord. The new note, D sharp, becomes the new root of the Swiss Augmented Sixth chord.

4. When in second inversion with the lowered sixth in its bass, the root D sharp is above in one of the other upper voices. The distance between the lowered sixth in the bass and the root of a Swiss Augmented Sixth chord in the upper voice is a doubly augmented fourth.

5. The purpose of using the enharmonic equivalent to change the German to a Swiss is to create an ascending leading tone to the major third of a tonic six-four chord.

6. The same three tones of an Italian Augmented Sixth chord that includes a raised fourth degree, lowered sixth degree (in major), and the tonic note of the scale, are also used as part of the intervallic structure of a Swiss Augmented Sixth chord. However, the Swiss Augmented Sixth chord includes one additional tone, a doubly augmented fourth from its bass tone when in second inversion.

7. The root of the Swiss Augmented Sixth chord is the raised second degree of the scale.

8. As with the French Augmented Sixth chord, the Swiss Augmented Sixth chord is often used in second inversion. When it is in second inversion, its intervallic structure includes a doubly augmented fourth. For example in C major, a second inversion Swiss Augmented Sixth chord is: A flat, C natural, D sharp, and F sharp. Between the lowest voice A flat and the upper voice D sharp, the interval is a doubly augmented fourth. Hence, its original name is “doubly augmented fourth chord”.

9. In C major, a root position Swiss Augmented Sixth chord is: D sharp, F sharp, A flat, and C natural. Based on tertian harmony, the D sharp is the root of the chord, the raised second degree of the scale. Above its root, the F sharp, A flat, and C natural are, respectively, a minor third, doubly diminished fifth, and diminished seventh of the chord. The A flat, a doubly diminished fifth from its root and the lowered sixth degree in major, is often used as the bass note. The D sharp, the raised second degree of the scale, serving as the root of the chord is often found in any of the upper voices.

10. The Swiss Augmented Sixth chord is a contemporary name used by some theorists today. It was traditionally known as a doubly augmented fourth chord [as explained in example 8 above]. Since it is the enharmonic equivalent of the German Augmented Sixth chord with a similar function, both the Swiss and German are traditionally discussed theoretically in the same chapter. The doubly augmented fourth chord or Swiss Augmented Sixth chord has been in the past traditionally considered to be a simple enharmonic permutation of the German Augmented Sixth chord to provide appropriate voice leading when progressing chromatically to a major tonic six-four chord.

Chapter 39: Swiss Augmented Sixth Chord: A Review
(continued)

11. Unlike the Italian and German Augmented Sixth chords with roots based on the raised fourth degree, the Swiss Augmented Sixth chord has a root based on the raised second degree of the scale. Because of tertian harmony, it is clear by the superimposition of thirds why the raised second degree is considered root.

12. Another theoretical perspective shared by some theorists is that the Swiss Augmented Sixth chord is a vii^{o}7/iii with a flat fifth. Because of tertian harmony with the root based on the raised second degree of the scale, it resembles an altered secondary diminished seventh chord of the mediant with a flat fifth. However, as with the other three augmented sixth chords, the Swiss Augmented Sixth chord functions as a pre-dominant sonority.

13. The Swiss and German Augmented Sixth chords share similar resolutions. Both augmented chords prefer to resolve to the tonic six-four chord, but with one slight difference. The preferred destination of a Swiss Augmented Sixth chord is to resolve to a major tonic six-four chord, while the German Augmented Sixth chord resolves to a minor tonic six-four chord.

14. As with the French Augmented Sixth chord, the Swiss Augmented Sixth chord is also often found in second inversion; the lowered sixth degree in major or the diatonic sixth degree in minor is employed in the lowest voice.

15. When using a figured bass, the indication for a Swiss Augmented Sixth chord in second inversion is
    #6 or Sw. #6.
    #4 #4.
    3 3.

16. The Swiss and French Augmented Sixth chords share the same letter name as its root, but not the same tone. The Swiss Augmented Sixth chord has a root based on the raised second degree, while the French Augmented Sixth chord has a root based on the diatonic second degree.

17. As with the other augmented sixth chords, the Swiss Augmented Sixth chord in second inversion includes an augmented sixth between its lowest voice and one of its upper voices. The resolution of the augmented sixth interval is outward to a doubled fifth of a major tonic six-four chord.

18. The Swiss Augmented Sixth chord is used preferably in major keys; however, it can be used in minor keys as well. The Swiss Augmented Sixth chord was developed to provide two lower leading tones that ascend chromatically to the major third and perfect fifth of the major tonic six-four chord.

19. The Swiss Augmented Sixth chord may be built on a scale degree other than the raised second degree of the scale in order to create remote modulations.

20. As with the Italian and German Augmented Sixth chords, the Swiss Augmented Sixth chord is also an enharmonic equivalent of a dominant seventh chord of the Neapolitan.

WORKBOOK

Chapter 40:
Swiss Augmented Sixth Chord: Selected Listening Examples

Selected compositions including Swiss Augmented Sixth chords

Gaetano (Domenico Maria) Donizetti (1797-1848)

1. Lucia di Lammermoor, "Sextette", (Measure 2).

Wolfgang Amadeus Mozart (1756-1791)

1. Sonata in C Major for Piano Four Hands, K. 521, Third Movement.

Frederic Chopin (1810-1849)

1. Ballade in A Flat Major, Op. 47, (Measure 99).
2. Polonaise in A Flat Major, Op. 40, No. 2.

Robert Schumann (1810-1856)

1. Am leuchtenden Sommermorgen from Dichterliebe, Op. 48, No. 12, (Measure 1, beat 1, 1840).

WORKBOOK

Chapter 41:
Swiss Augmented Sixth Chord: Analyses

Analyses of selected compositions including Swiss Augmented Sixth chords

Lucia di Lammermoor, "Sextette", by Gaetano (Domenico Maria) Donizetti (1797-1848)

The Donizetti example below illustrates a doubly augmented fourth, or known by some theorists of late as the Swiss Augmented Sixth chord. The beautiful operatic Sextette is reduced in four parts to elucidate the harmonic progression in the key of D flat major.

Below, the four bar excerpt begins with a root position, full-diminished seventh chord of the dominant. The secondary diminished seventh chord's bass part, G natural, progresses up by step to A flat, the fifth of the passing tonic six-four chord in beat 2. The A flat of the tonic six-four chord in the bass line continues to ascend by step to the lowered sixth degree, B double flat, of the Swiss Augmented Sixth chord in beat 3. On beat 3, above the lowered sixth degree (B double flat), there are three more tones that complete the Swiss Augmented Sixth chord: D flat (tenor voice), E natural (alto voice), and G natural (soprano voice).

Based on tertian harmony, the root of the Swiss Augmented Sixth chord is E natural, the raised second degree of the D flat major scale. The G natural, B double flat, and D flat serve as the minor third, doubly diminished fifth, and diminished seventh, respectively. The position of the chord is in second inversion, with the B double flat (lowered sixth degree) in the bass part.

The distance from B double flat in the bass to the root, E natural, in the alto voice is the interval of a doubly augmented fourth. It is this unusual interval that gave birth to the Swiss Augmented Sixth chord's original name, "doubly augmented fourth", to differentiate it from its enharmonic equivalent, the German Augmented Sixth chord.

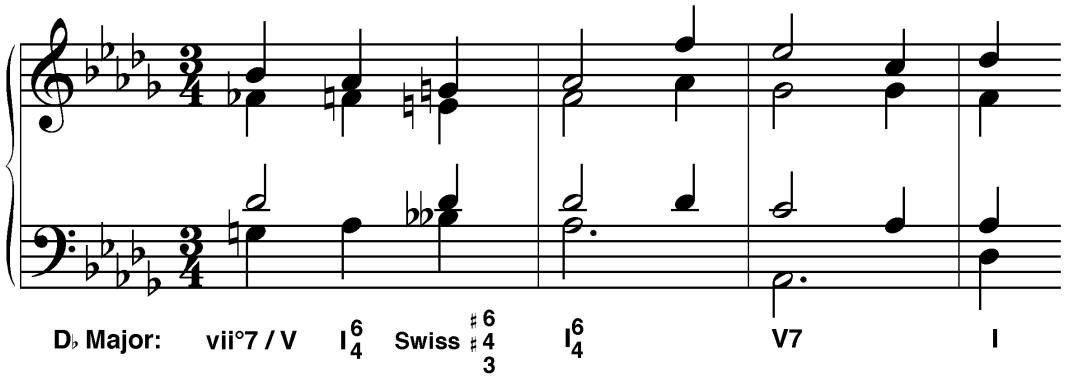
If it had been written as a German Augmented Sixth chord, the E natural would have been written as an F flat. Instead, the enharmonic equivalent, E natural, serving also as the root of the Swiss Augmented Sixth chord, smoothly resolves up a half step to the major third of the tonic six-four chord. In fact, it is the E natural in the alto voice as well as the G natural in the soprano voice, which serve as two lower leading tones to the major third and perfect fifth, respectively, of the major tonic six-four chord. The two lower leading tones of the Swiss Augmented Sixth chord make this augmented chord more significant and appropriate than the German Augmented Sixth chord. The F flat of the German Augmented Sixth chord indeed would not have provided the best voice leading to F natural. Therefore, the doubly augmented fourth or Swiss Augmented Sixth chord is undoubtedly Donizetti's best choice.

As for the augmented sixth in this musical example, it is found from the B double flat in the lowest voice to the G natural in the soprano voice. The augmented sixth resolves appropriately in contrary motion to a doubled fifth, the A flat of the major tonic six-four chord, in the following measure. It progresses to an A flat dominant seventh chord in the next bar with it resolving to the D flat major tonic triad in the next measure.

As a conjecture, perhaps to keep all four augmented sixth chords homogenous with their names may explain why today it is more often referred to as a Swiss Augmented Sixth chord. Although the doubly augmented fourth is suigeneris only to the Swiss Augmented Sixth chord, it is the interval of an augmented sixth, which keeps all four augmented sixth chords unified as one family.

Lucia di Lammermoor, "Sextette", by Gaetano (Domenico Maria) Donizetti (1797-1848)

Example 1:



Chapter 41: Swiss Augmented Sixth Chord: Analyses (continued)

Am leuchtenden Sommermorgen from Dichterliebe, Op. 48, No. 12, (Measure 1, Beat 1, 1840), by Robert Schumann (1810-1856)

As discussed earlier, augmented sixth chords most often are used as pre-dominant sonorities in preparation for a cadence. However, occasionally a composer may use it in a less traditional manner. Robert Schumann's lied from Dichterliebe is a fine example. The song "Am leuchtenden Sommermorgen", one of 16 songs from the song-cycle Dichterliebe, includes on beat 1 of the first measure in the piano accompaniment an arpeggiated Swiss Augmented Sixth chord. It resolves in bar 2, beat 1, to a major tonic six-four chord. A dominant seventh chord follows the tonic six-four chord in beat 2.

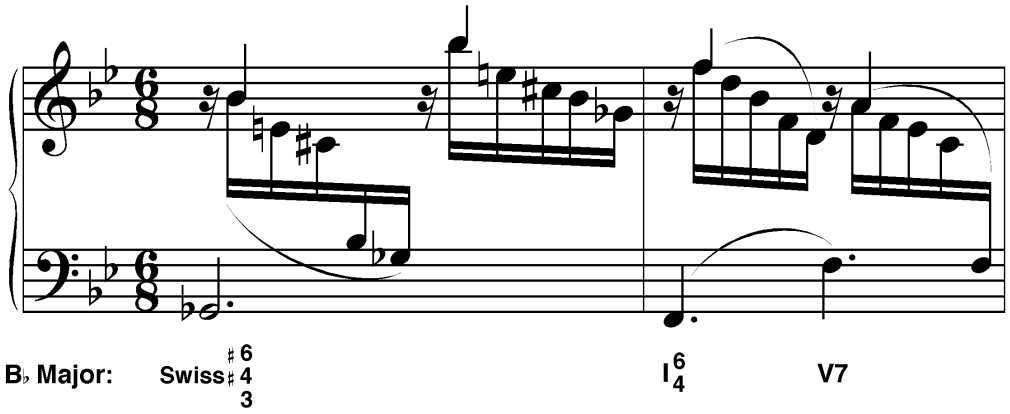
The lied "Am leuchtenden Sommermorgen" is in B flat major. The Swiss Augmented Sixth chord is built on the raised second degree of the major scale, which is C sharp. The remaining three tones are: E natural, G flat, and B flat. The tone, E natural, a minor third above its root, is the raised fourth degree of the B flat major scale. The next tone, G flat, a doubly diminished fifth above its root, is the lowered sixth degree. The final note of the Swiss Augmented Sixth chord is B flat, a diminished seventh above its root and the tonic note of the scale. Hence, in B flat major, the Swiss Augmented Sixth chord in root position is: C sharp, E natural, G flat, and B flat. The chord is often employed in second inversion. Therefore, the doubly diminished fifth of the chord, G flat (the lowered sixth degree of scale), is in the lowest voice, with the remaining tones above it. Because the raised second degree of the key, C sharp, is above the lowered sixth degree, G flat in the bass, explains its original name doubly augmented fourth.

Although the tones of the Swiss Augmented Sixth chord in the piano accompaniment are arpeggiated, each tone appropriately resolves to its destination to a major tonic six-four chord in the next bar, which is also arpeggiated. The augmented sixth, G flat and E natural, resolves appropriately in contrary motion to the fifth, F natural, of the B flat tonic six-four chord. The diminished seventh, B flat, of the Swiss Augmented Sixth chord remains as a common tone, the root of the tonic six-four chord. The root of the Swiss Augmented Sixth chord, C sharp, functions as a second lower leading tone. In conjunction with the E natural ascending to F natural (the fifth of the tonic six-four chord), the C sharp also ascends chromatically to D natural, the major third of the B flat major tonic six-four chord.

Schumann theoretically chose the Swiss Augmented Sixth chord rather than the German Augmented Sixth chord in order to provide correct voice leading. The C sharp and E natural of the Swiss Augmented Sixth chord both function as two lower leading tones, which ascend and resolve, respectively, to D natural and F natural, the major third and perfect fifth of the tonic six-four chord in B flat major. Although each harmony in the piano accompaniment is arpeggiated, the ear retains each tone of its chord and its resolution.

Am leuchtenden Sommermorgen from Dichterliebe, Op. 48, No. 12, (Measure 1, beat 1, 1840), by Robert Schumann (1810-1856) (continued)

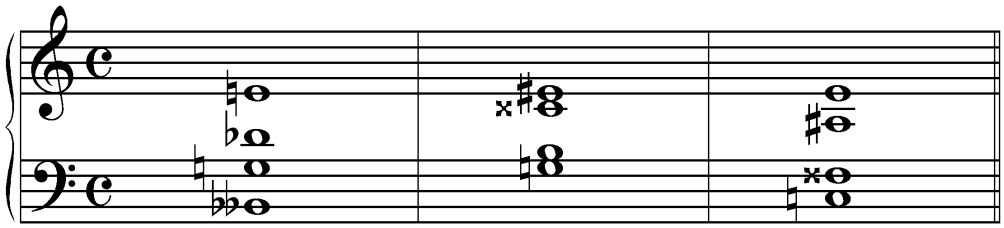
Example 2:



WORKBOOK

Chapter 42:
Swiss Augmented Sixth Chord: Exercises

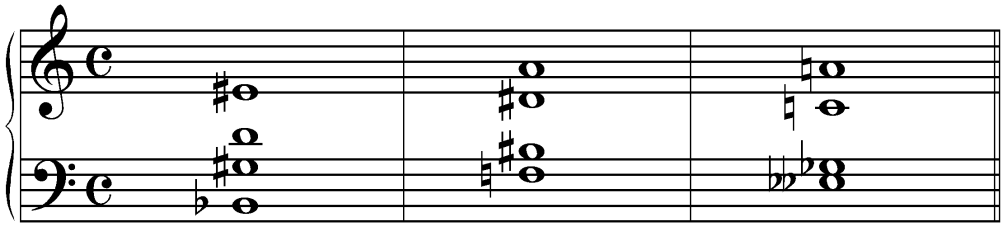
Identify the following Swiss Augmented Sixth chords and their respective key



Swiss ♯6 ♯4 3 Key:

Swiss ♯6 ♯4 3 Key:

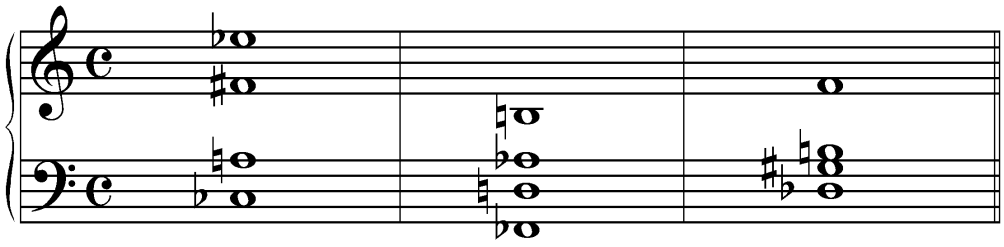
Swiss ♯6 ♯4 3 Key:



Swiss ♯6 ♯4 3 Key:

Swiss ♯6 ♯4 3 Key:

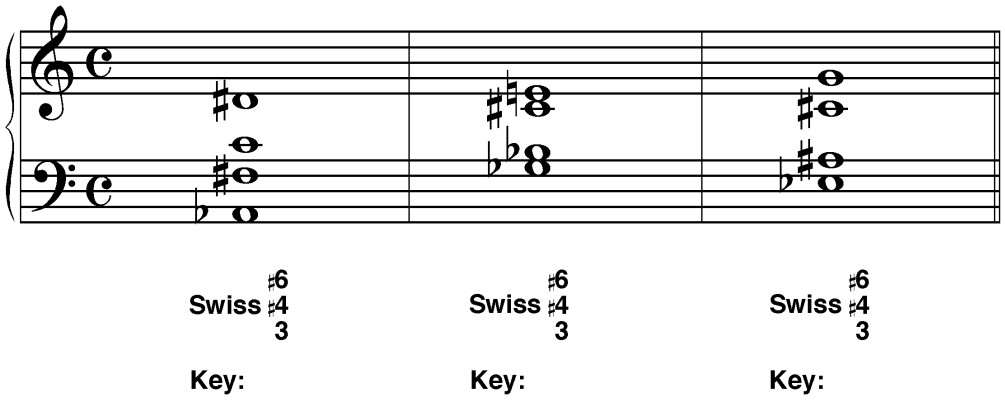
Swiss ♯6 ♯4 3 Key:



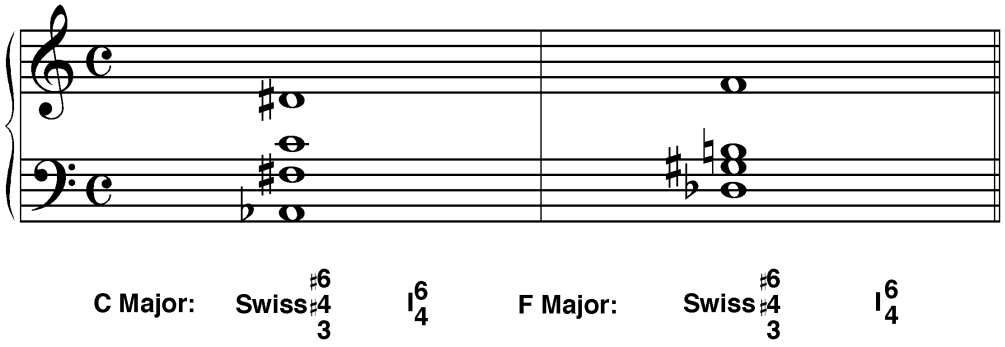
Swiss ♯6 ♯4 3 Key:

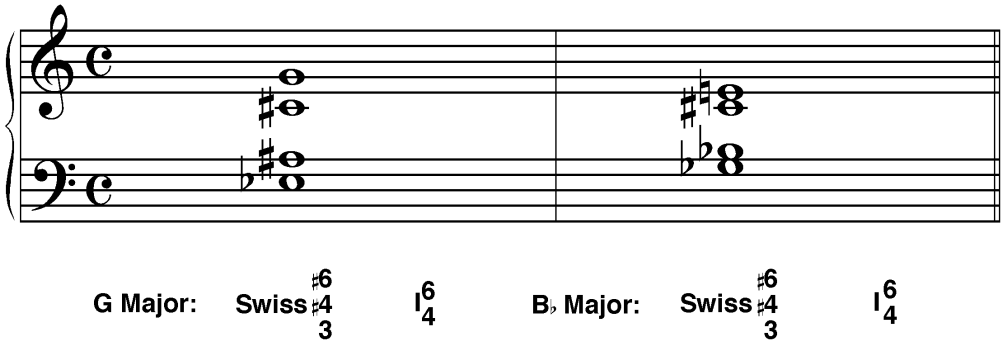
Swiss ♯6 ♯4 3 Key:

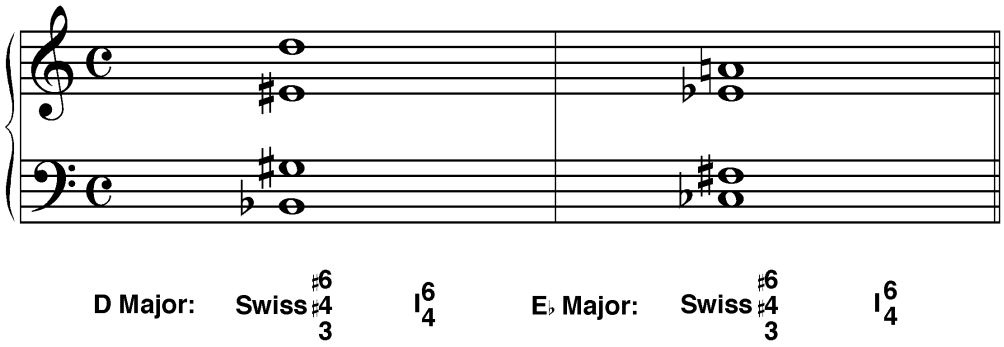
Swiss ♯6 ♯4 3 Key:

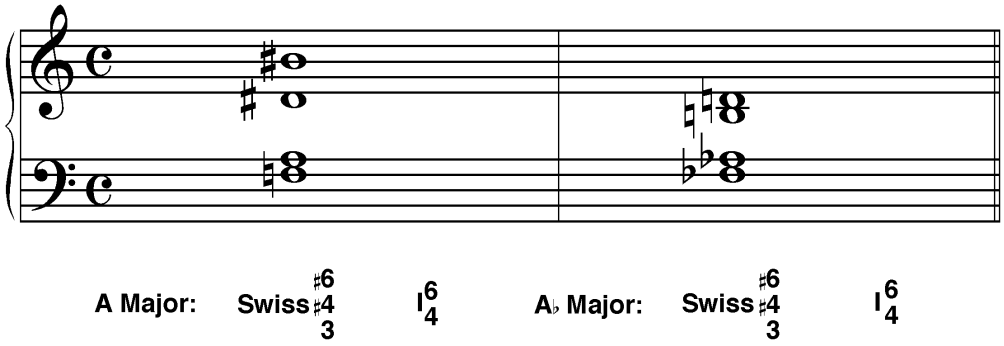


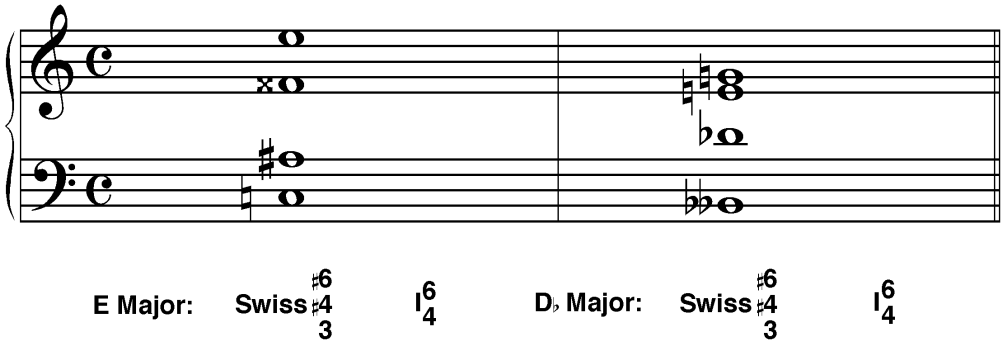
Resolve the following Swiss Augmented Sixth chords

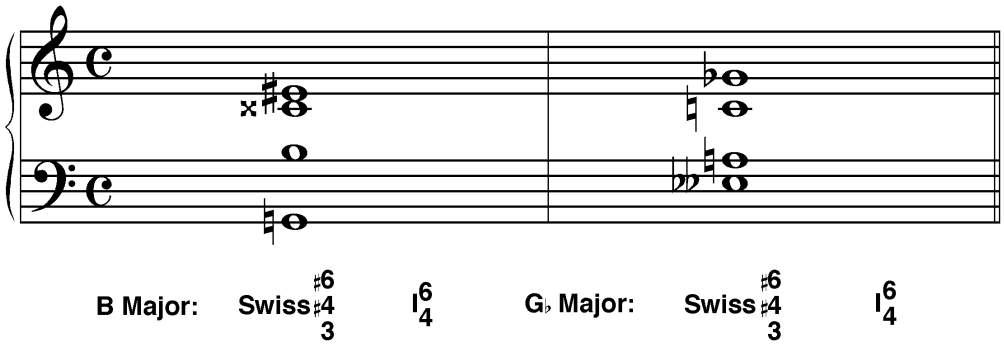


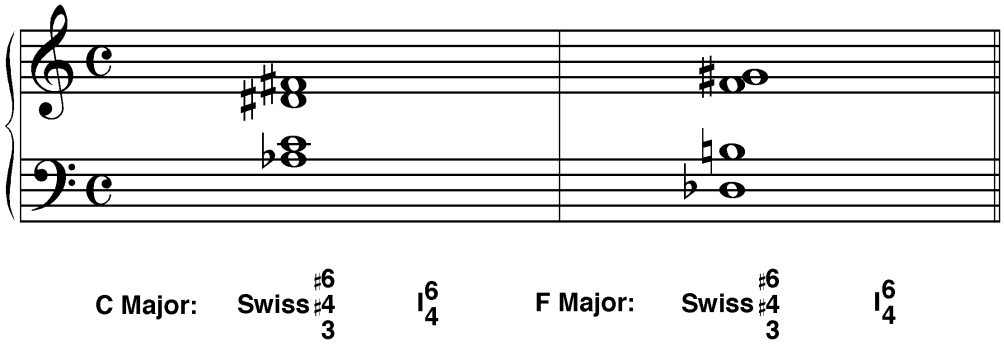


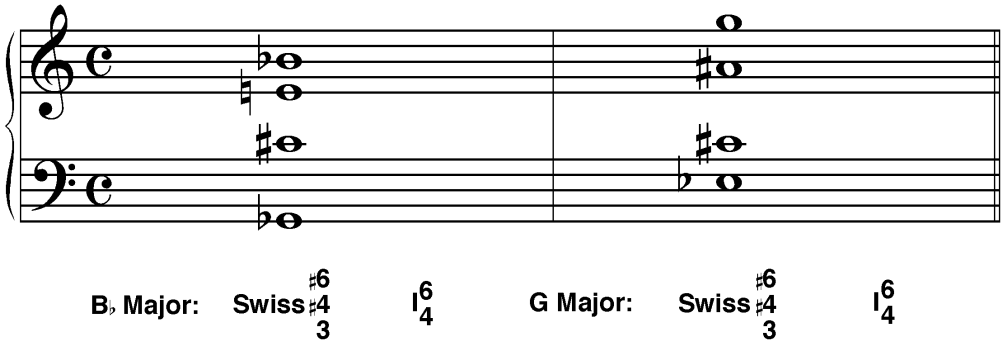

D Major: Swiss ♯6 ♯4 3 I 6 4
E♭ Major: Swiss ♯6 ♯4 3 I 6 4


A Major: Swiss ♯6 ♯4 3 I 6 4
A♭ Major: Swiss ♯6 ♯4 3 I 6 4

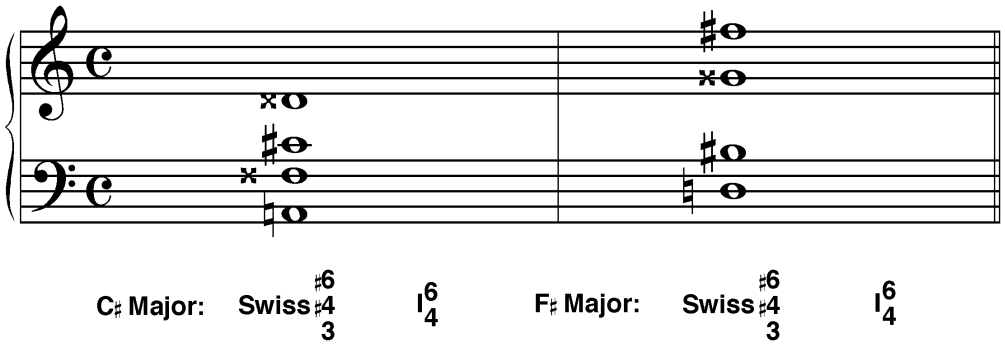

E Major: Swiss ♯6 ♯4 3 I 6 4
D♭ Major: Swiss ♯6 ♯4 3 I 6 4


B Major: Swiss ♯6 ♯4 3
I 6 4
G♭ Major: Swiss ♯6 ♯4 3
I 6 4

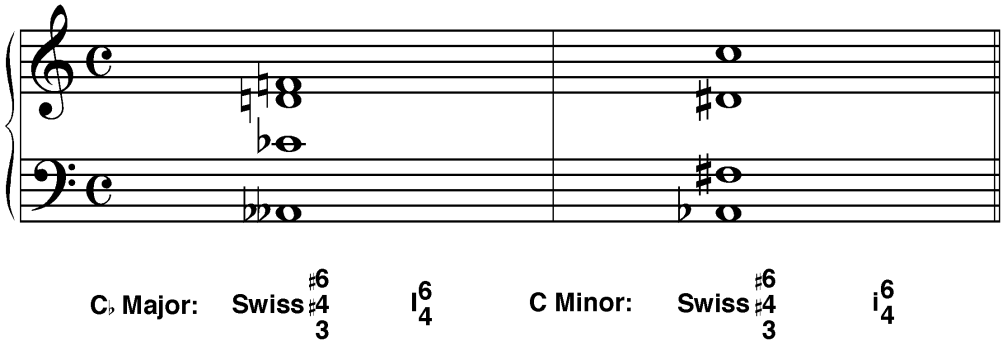

C Major: Swiss ♯6 ♯4 3
I 6 4
F Major: Swiss ♯6 ♯4 3
I 6 4


B♭ Major: Swiss ♯6 ♯4 3
I 6 4
G Major: Swiss ♯6 ♯4 3
I 6 4

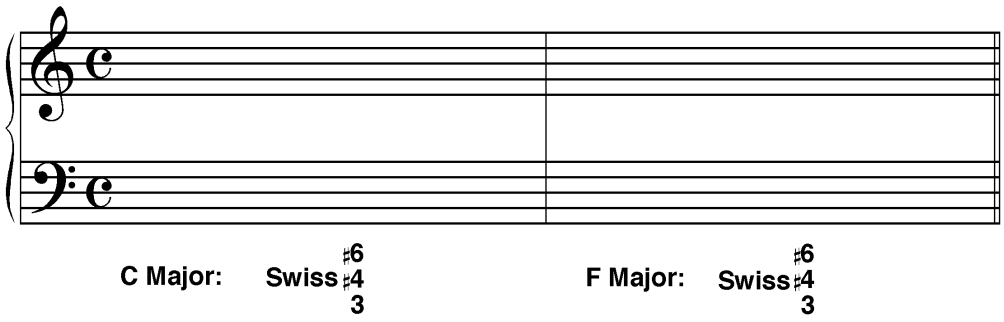
Chapter 42: Swiss Augmented Sixth Chord: Exercises
(continued)



Please resolve the last example that is in C minor and review the awkward voice leading that results in a minor key.

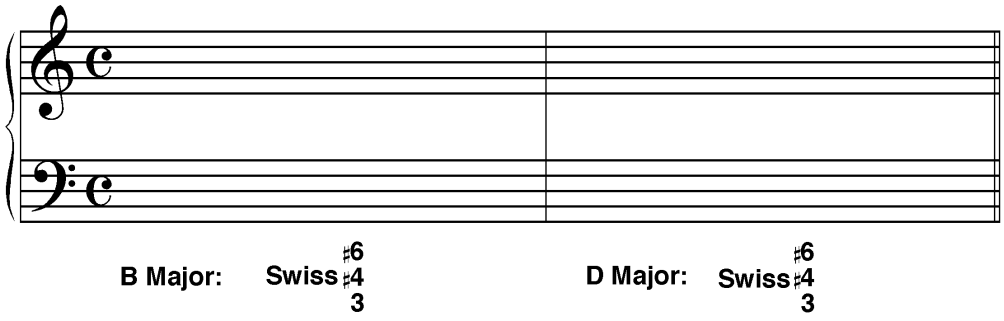


Create a four-part Swiss Augmented Sixth chord for the following keys



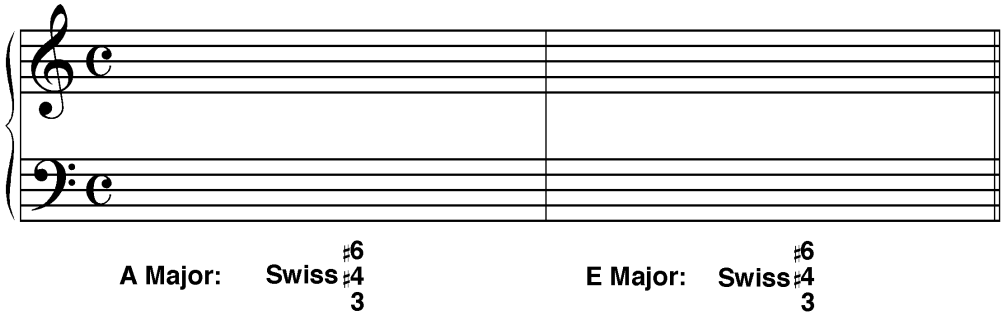
C Major: Swiss ♯6 ♯4 3

F Major: Swiss ♯6 ♯4 3



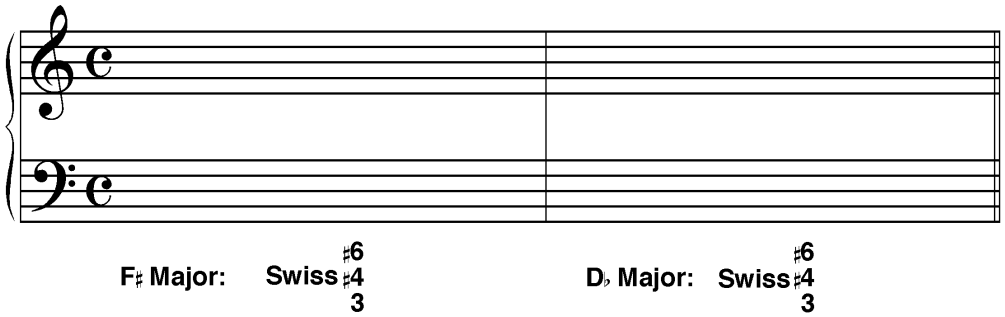
B Major: Swiss ♯6 ♯4 3

D Major: Swiss ♯6 ♯4 3

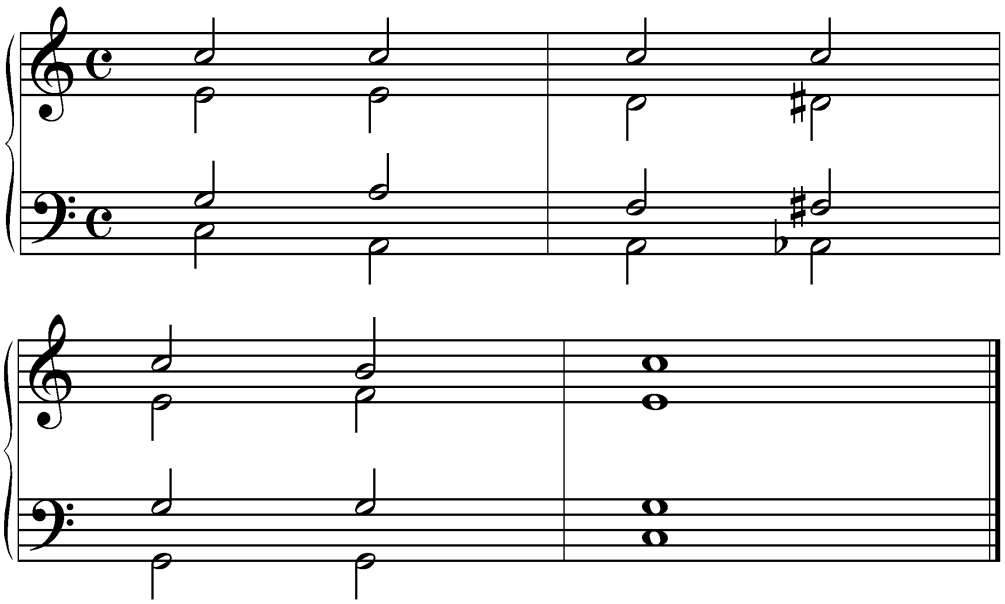


A Major: Swiss ♯6 ♯4 3

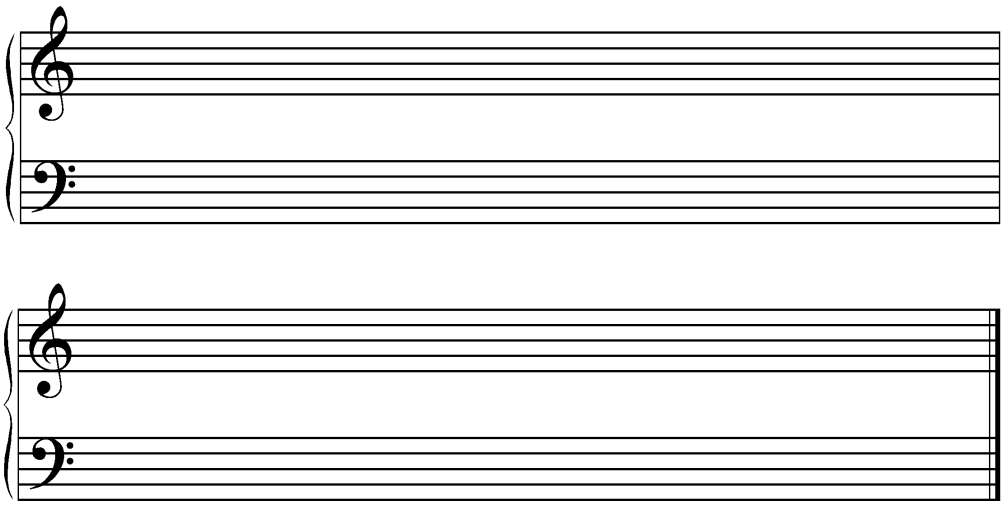
E Major: Swiss ♯6 ♯4 3



Analyze the four-part chorale including a Swiss Augmented Sixth chord in the given key



Create a four-part chorale including a Swiss Augmented Sixth chord (minimum four bars)



WORKBOOK

Chapter 43:
Alternate Functions of the Augmented Sixth Chord

Other uses of the augmented sixth chord: An overview

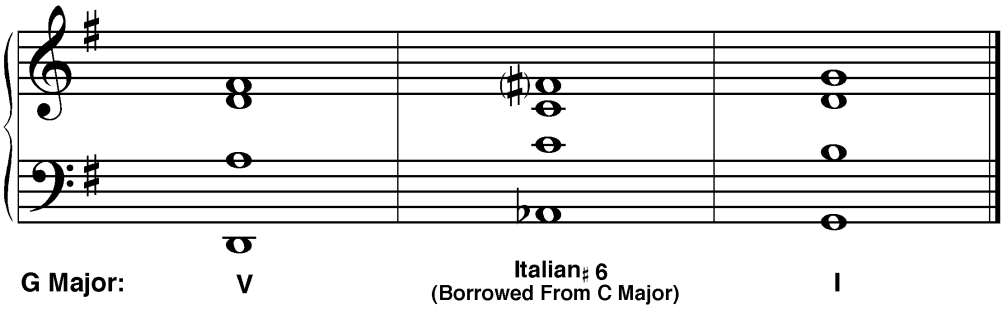
As we learned in the previous chapters, the augmented sixth chords are either built on the diatonic second degree or raised second degree as well as the raised fourth degree of the scale. For example, the Italian and German Augmented Sixth chords are built on the raised fourth degree. However, the French Augmented Sixth chord is built on the second degree of the scale, while the Swiss Augmented Sixth chord is built on the raised second degree. All four augmented sixth chords function as "pre-dominant sonorities". For example, the Italian Augmented Sixth chord resolves directly to the dominant, while the German and Swiss Augmented Sixth chords, most often, resolve to the cadential tonic six-four chord before arriving to its dominant. The most versatile augmented sixth chord is the French Augmented Sixth. It resolves to either the cadential tonic six-four chord or dominant. However, in this chapter, we will demonstrate a few selected examples how an augmented sixth chord's root built on another scale degree can create an alternate function and destination.

When augmented sixth chords are borrowed from another key and resolve somewhere other than the dominant or tonic six-four chord of the key, they are no longer augmented chords built on the diatonic or raised second degrees or raised fourth degree. Instead of having a "pre-dominant sonority", within their key, they now have a new function as either a "pre-secondary dominant sonority" (similar to a secondary dominant) or as a chromatically altered chord functioning as a dominant seventh chord. Because these augmented sixth chords are borrowed from another key, they will obviously be built on other degrees of the scale. The determination of its scale degree will depend on its scale degree of the chord of resolution, which will create the unique difference in function and its destination. In other words, when an augmented sixth chord is borrowed from another key, its root would now be built on a different scale degree; therefore, its function will be altered. Regardless of its new function and newly built scale degree, the common voice leading of each tone of the borrowed augmented sixth chord will still resolve chromatically in the same manner; i.e., the augmented sixth will resolve outward in contrary motion. This procedure of borrowed augmented sixth chords with an alternate function and resolution are most common with major triads and more rare with minor triads.

Chapter 43: Alternate Functions of the Augmented Sixth Chord
(continued)

The first example below is in G major and demonstrates how an Italian Augmented Sixth chord borrowed from C major is used as an altered dominant resolving directly to its tonic, G major. If we were in C major, this progression would have been an ordinary progression and resolution of an augmented sixth built on the raised fourth degree resolving appropriately to its G dominant. However, the F sharp Italian Augmented Sixth chord (borrowed from C major) is in G major; therefore, it is not built on G major's raised fourth degree, but on its seventh degree. This example demonstrates how a borrowed Italian Augmented Sixth chord from C major does not resolve in its usual manner to a G dominant or to a tonic six-four chord with a final destination to a C major tonic. Instead, it simply resolves and cadences directly to a tonic G major triad. In essence, the borrowed Italian Augmented Sixth chord's progression and resolution in G major is a substitution for its own dominant seventh chord. In this example, the borrowed augmented sixth chord functions and resolves not as a pre-dominant sonority, but as an altered dominant sonority.

Example 1:

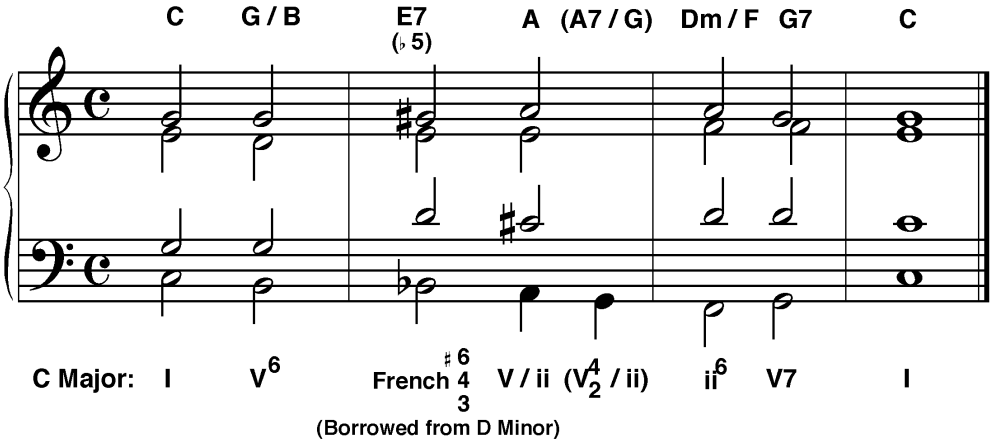


The second example below is in a 2/4 meter in C major including a borrowed French Augmented Sixth chord from D minor, the supertonic of C major. In D minor, the French Augmented Sixth chord is E natural, G sharp, B flat, and D natural, built on its second degree. However, in this example in C major, the borrowed French Augmented Sixth chord's root, E natural is based on the third degree of the C major scale.

Prior to the borrowed French Augmented Sixth chord, we hear a root position, tonic C major triad progressing to a first inversion dominant (G/B) of C major. In the bass voice, the third of the dominant, B natural, descends chromatically in the next bar to B flat, the diminished fifth of the French Augmented Sixth chord. The borrowed augmented sixth chord is spelled from bottom to top: B flat, D natural, E natural, and G sharp. The borrowed French Augmented Sixth chord from D minor is in its common second inversion position and is clearly not the augmented sixth chord that supports the key of C major. In this instance, the borrowed French Augmented Sixth functions as a "pre-secondary dominant sonority", which is supporting D minor as the supertonic in the key of C major and not as a tonic.

The E French Augmented Sixth resolves, as it typically would in D minor, to the D minor's dominant, A major, which functions here in C major as V/ii. On the downbeat, the A major triad in root position (V/ii) also includes a passing minor seventh in the bass resolving to a first inversion D minor triad. If we were in D minor, this would be a typical progression using the French Augmented Sixth chord resolving to the dominant of D minor. However, the A major triad, the dominant of D minor (V/ii), resolves to a weak position D minor triad in its first inversion, functioning as the ii6 chord of C major rather than an authentic cadence in D minor. With the D minor triad in first inversion and immediately progressing diatonically to the G dominant seventh chord substantiates the function of D minor as the supertonic of C major.

Example 2:

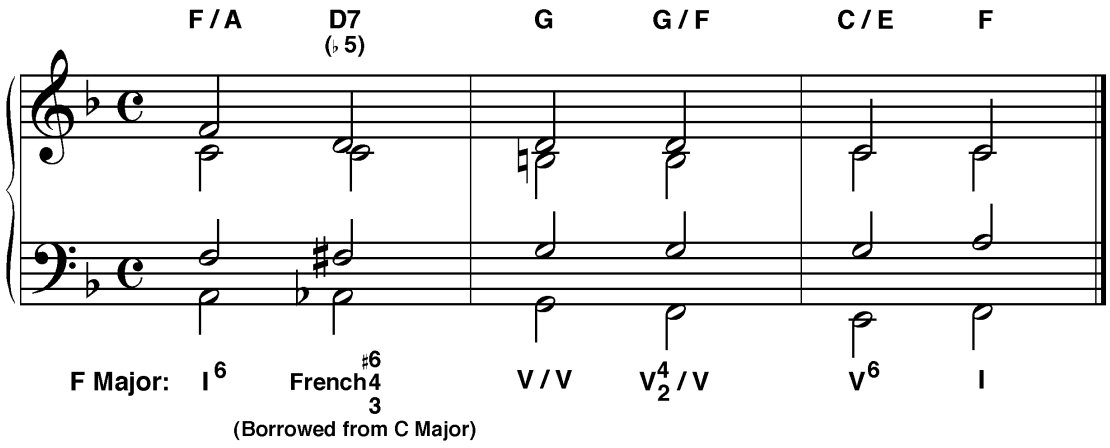


The third example below in F major illustrates how a borrowed French Augmented Sixth chord from C major can effectively function as a pre-secondary dominant sonority. In C major, the D French Augmented Sixth chord is built on the second degree. However, because we are in F major, it is built on the sixth degree. As we already know, the French Augmented Sixth chord may resolve to either a dominant or tonic six-four chord. In this example, the French Augmented Sixth resolves directly to a G major triad, the dominant of the dominant in F major.

The resolution of this French Augmented Sixth chord to G major is as though we were in C major with its proper resolution to C major's dominant triad. However, we are in F major, and instead, the G major triad functions as V/V, and not as a minor supertonic (ii). Therefore, the borrowed French Augmented Sixth functions as a pre-secondary dominant sonority, which supports the dominant of the dominant. The second inversion French Augmented Sixth is essentially a D7b5 harmony, functioning as a V7b5 of V/V.

After the D French Augmented Sixth resolves to the G major triad, which functions as V/V, the G major triad progresses in the next beat to a third inversion G dominant seventh chord. The G7 chord resolves immediately to a first inversion C major triad. In its weak position, the first inversion C major triad is not functioning as a tonic, but as a V6 chord, which finally resolves to its tonic, F major, which inevitably supports the theory of the borrowed augmented sixth chord.

Example 3:



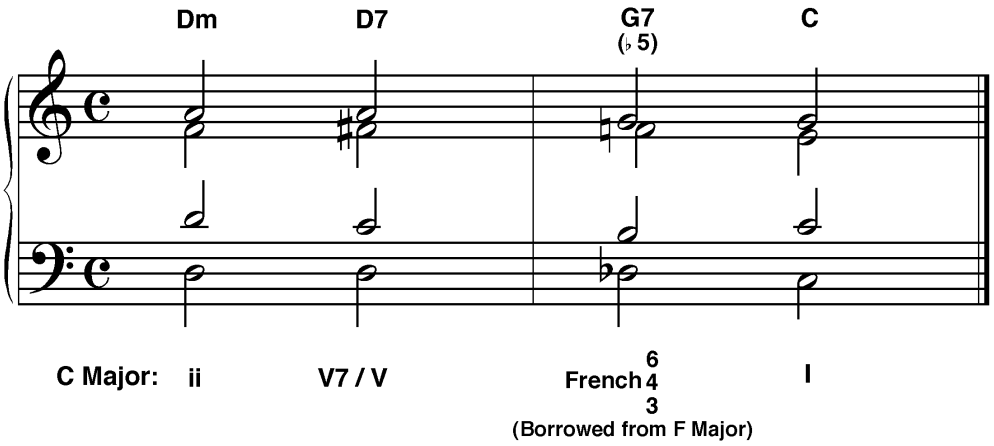
The fourth example below is very similar to the first example where we heard a borrowed Italian Augmented Sixth chord from one key progressing directly to a tonic triad from another key. In this example, it is a French Augmented Sixth chord instead of an Italian Augmented Sixth chord. The destination and resolution of the French Augmented Sixth chord progresses to the tonic C major chord.

The example below illustrates how a French Augmented Sixth chord from F major, built on its second degree (G natural, B natural, D flat, and F natural), is borrowed effectively as a pre-dominant sonority in C major. Of course in C major, the borrowed G French Augmented Sixth chord is built on the fifth degree instead of the second degree of F major where it actually belongs.

As we have studied earlier, the function of a French Augmented Sixth chord is to resolve to either a dominant or tonic six-four chord. In this example, however, the French Augmented Sixth resolves to a root position C major triad, the tonic of the key. If the French Augmented Sixth were in its proper key of F major, the progression would simply be a typical and appropriate resolution to its dominant, C major. However, in this scenario, C major is not the dominant, but the tonic. The final cadence on C major solidifies its sonority.

The G French Augmented Sixth chord, borrowed from F major, is essentially a G7b5 dominant of C major, as with the first example, functioning as an altered dominant sonority. The borrowed French Augmented Sixth chord provides not only variety to the conventional progression of a dominant seventh chord to its tonic, but also as an alternate progression and function to the traditional and common progression to which we are already accustomed with the augmented sixth chords.

Example 4:



Notice in the analysis above that the notation of the French Augmented Sixth chord does not include the usual **#6** in its analysis. This is because the B natural is a diatonic degree of C major, whereas in F major, it would have functioned as an altered, chromatically raised tone.

PART THREE:
FOUR-PART HARMONY

WORKBOOK

Chapter 44:
Bach Chorale Titles for Analysis

Below are the titles for each Bach chorale from **Advanced Theory I, Third Semester**. They are listed here for your review and/or reference. The music and listening examples of each Bach chorale below can be found online only in the corresponding Advanced Theory I Online Course, Third Semester. Please submit your analyses for all the Bach chorales online.

List of J. S. Bach chorales for analysis online (third semester)

1. Bach Chorale No. 1, “Aus meines Herzens Grunde”.
2. Bach Chorale No. 5, “An Wasserflussen Babylon”.
3. Bach Chorale No. 20, “Ein’ feste Burg”.
4. Bach Chorale No. 48, “Ach wie fluchtig, ach wie nichtig”.
5. Bach Chorale No. 78, “Herzliebster Jesu”.
6. Bach Chorale No. 105, “Herzliebster Jesu was hast du verbrochen".
7. Bach Chorale No. 350, “Werde munter, mein Gemute”.
8. Bach Chorale No. 369, “Jesu, der du meine Seele”.

Chapter 44: Bach Chorale Titles for Analysis
(continued)

Below are the titles for each Bach chorale to be analyzed for **Advanced Theory II, Fourth Semester.** Each title is listed here for your reference. The music and listening examples for each Bach chorale can be found online in the corresponding Advanced Theory II Online Course, Fourth Semester. Please submit your analyses for all the Bach chorales online.

List of J. S. Bach chorales for analysis online (fourth semester)

1. Bach Chorale No. 26, "O Ewigkeit, du Donnerwort".
2. Bach Chorale No. 27, "Es spricht der Unweisen Mund".
3. Bach Chorale No. 28, "Nun komm, der Heiden Heiland".
4. Bach Chorale No. 31, "Ach lieben Christen, seid getrost".
5. Bach Chorale No. 40, "Ach Gott und Herr".
6. Bach Chorale No. 41, "Was mein Gott will, das".
7. Bach Chorale No. 42, "Du Friedensfurst, Herr Jesu Christ".
8. Bach Chorale No. 53, "Das Neugeborne Kindelein".
9. Bach Chorale No. 54, "Lobt Gott, ihr Christen, allzugleich".

Extra credit

An additional four-part chorale for analysis:
(Not available online, check library reserve or Bach Riemenschneider)

1. Four-part chorale "Erhalt uns, Herr, bei deinem Wort" (Anonymous; German Chorale, 1543).

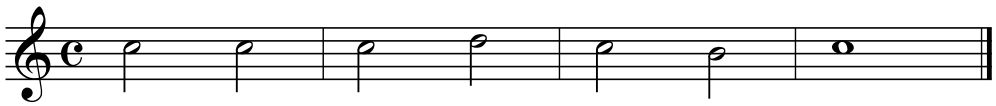
WORKBOOK

Chapter 45:
Harmonization of a Melody

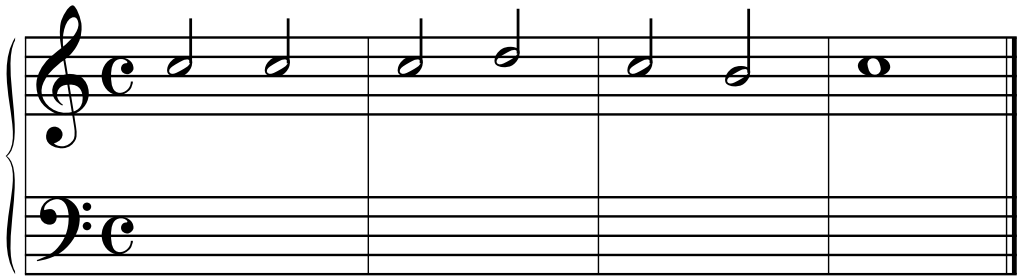
Below is a four-measure melody that can be harmonized in either C major or C minor. Students will be required to create a four-part harmonization of this melody in both keys.

Remember that each tone in a melody can have three possible solutions when the harmonies are only drawn from its diatonic scale. For example, the first note (tonic) of the C major scale can be harmonized with three different chords: C major (C-E-G), F major (F-A-C), and A minor (A-C-E). As you can see, the tonic note C functions as the root for the C major triad, while in the F major triad it serves as the fifth and in the A minor triad as the third.

Please review and analyze the melody below before doing your four-part harmonization. At the end of the assignment, there are two completed harmonized examples for this melody, one in C major and the other in C harmonic minor. Please review the two harmonized melodies only after you have completed the assignment.

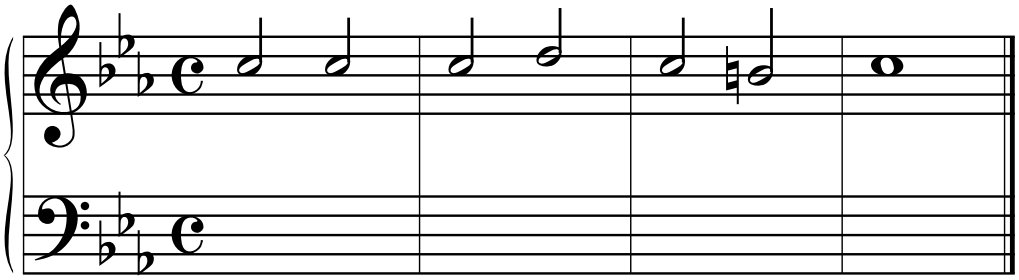


Below in the Grand Staff, please complete a four-part harmonization of the melody in **C major,** using tones only from the C diatonic major scale.



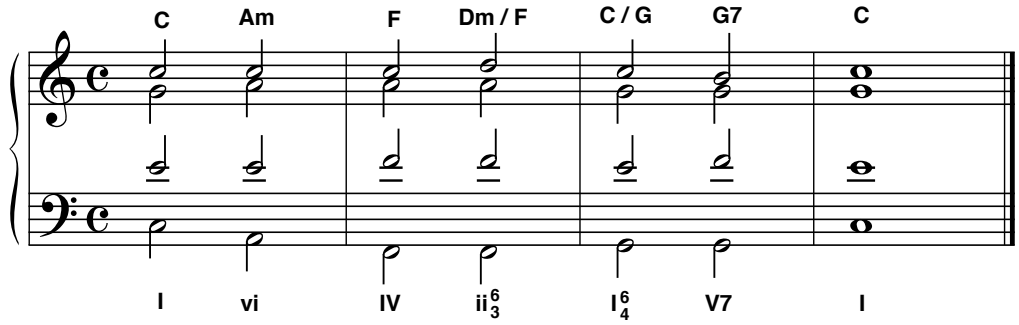
Chapter 45: Harmonization of Melody
(continued)

Below in the grand staff, please complete a four-part harmonization of the melody in **C harmonic minor.** (Please use tones only from the C harmonic minor scale).



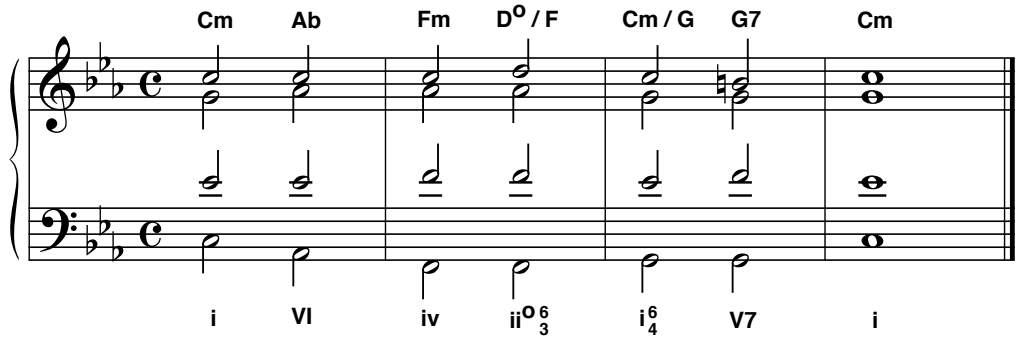
Below are two examples how to harmonize the above melody in C major and C harmonic minor. This harmonization, of course, is not the only choice a composer has harmonizing this given melody; however, it is one of the more common and strong harmonic progressions for this particular example.

The example below is a four-measure melody harmonized in C major:

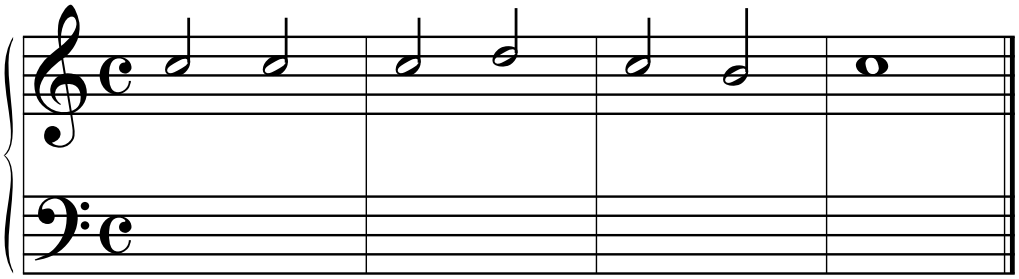


Chapter 45: Harmonization of Melody
(continued)

The example below is a four-measure melody harmonized in C harmonic minor:



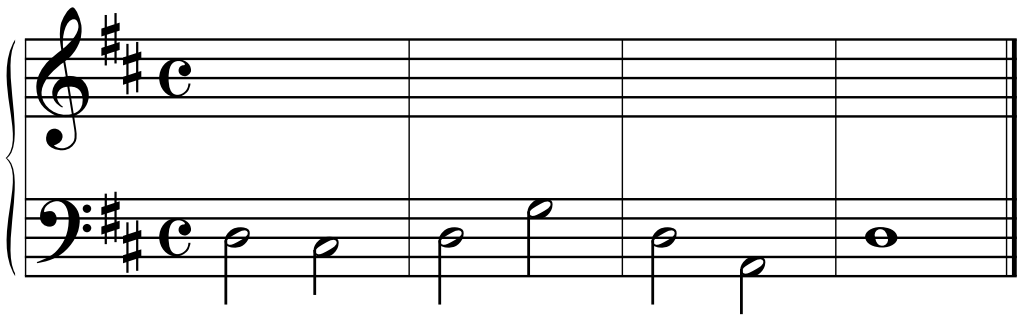
Below is an additional grand staff for you to explore another possible solution of the same melody in either C major or C harmonic minor:



WORKBOOK

Chapter 46:
Harmonization of a Bass Line

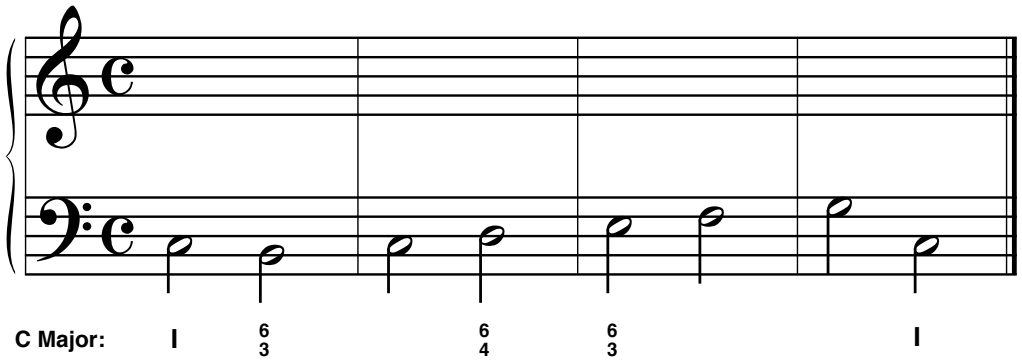
Example:



WORKBOOK

Chapter 47:
Harmonization of a Figured Bass #1

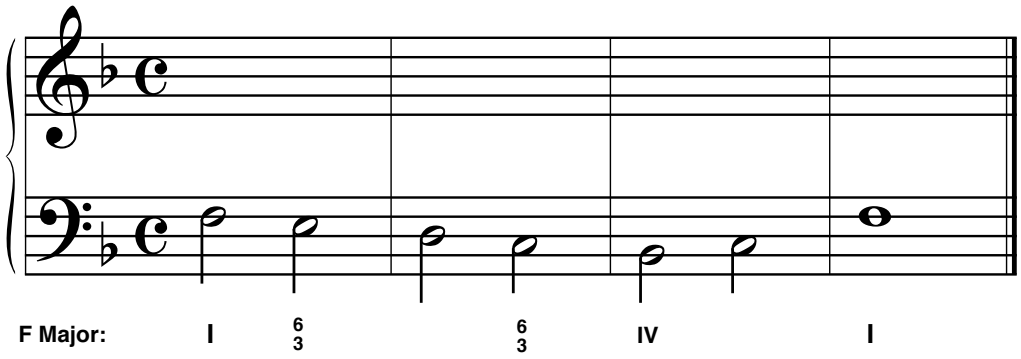
Example 1:



WORKBOOK

Chapter 48:
Harmonization of a Figured Bass #2

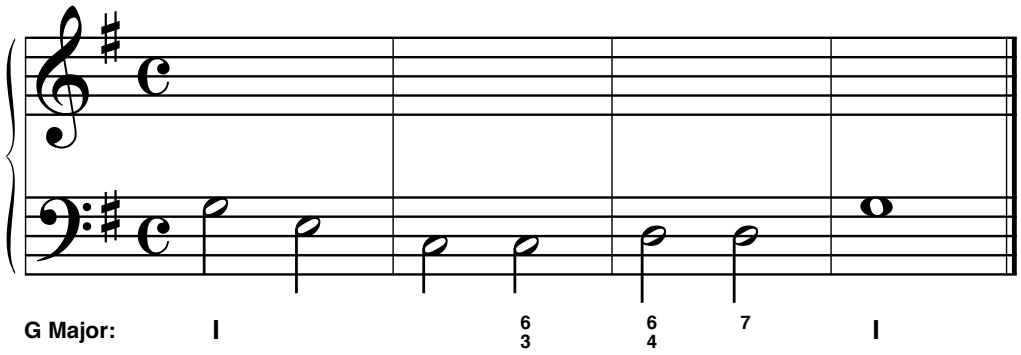
Example 2:



WORKBOOK

Chapter 49:
Harmonization of a Figured Bass #3

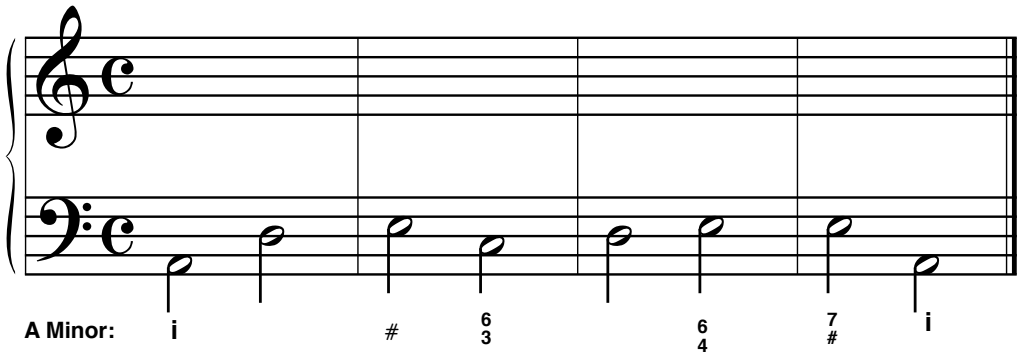
Example 3:



WORKBOOK

Chapter 50:
Harmonization of a Figured Bass #4

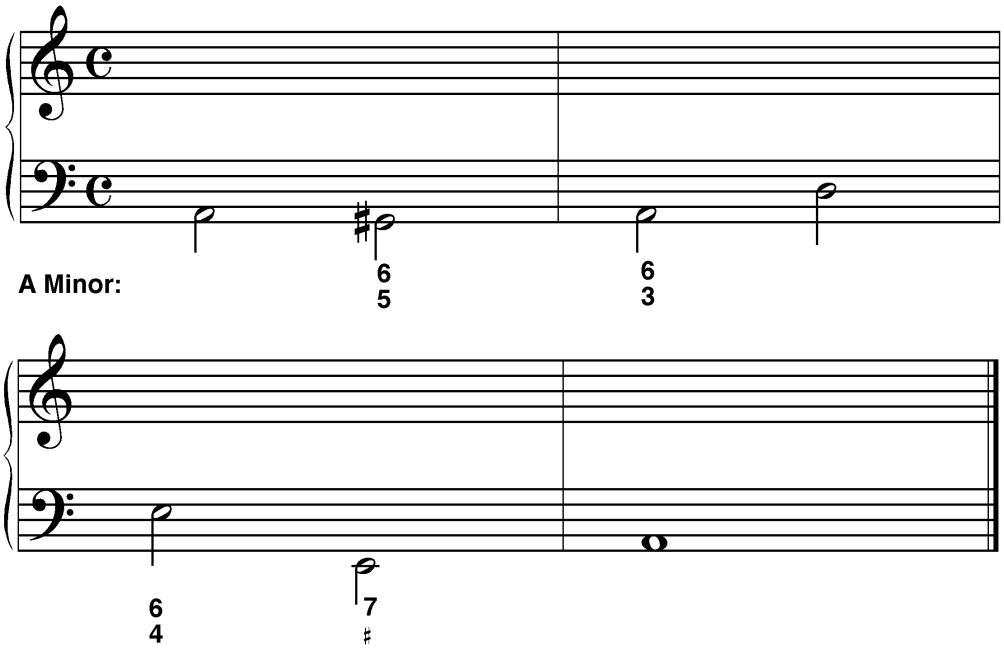
Example 4:



WORKBOOK

Chapter 51:
Harmonization of a Figured Bass #5

Example 5:



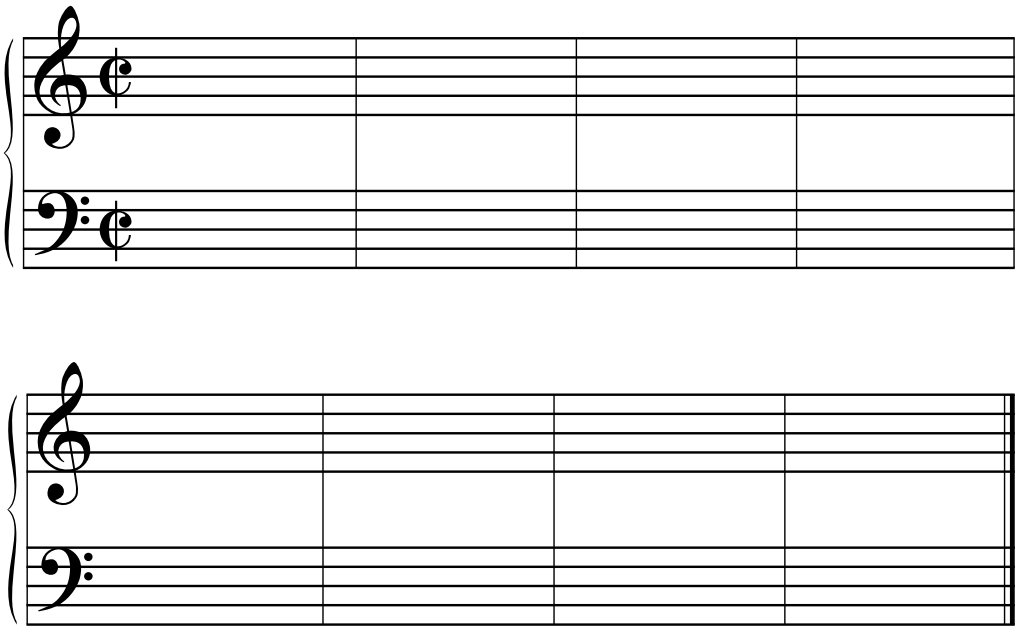
WORKBOOK

Chapter 52:
Create Your Own Figured Bass and Harmonization

On the two grand staves below, please create a figured bass pattern (approximately eight measures total) with the appropriate Arabic numeral symbols below the bass line to indicate which harmonies will be inverted. After you have completed your figured bass, please harmonize your bass line by adding the tenor, alto, and soprano parts above.

Figured bass harmonization.

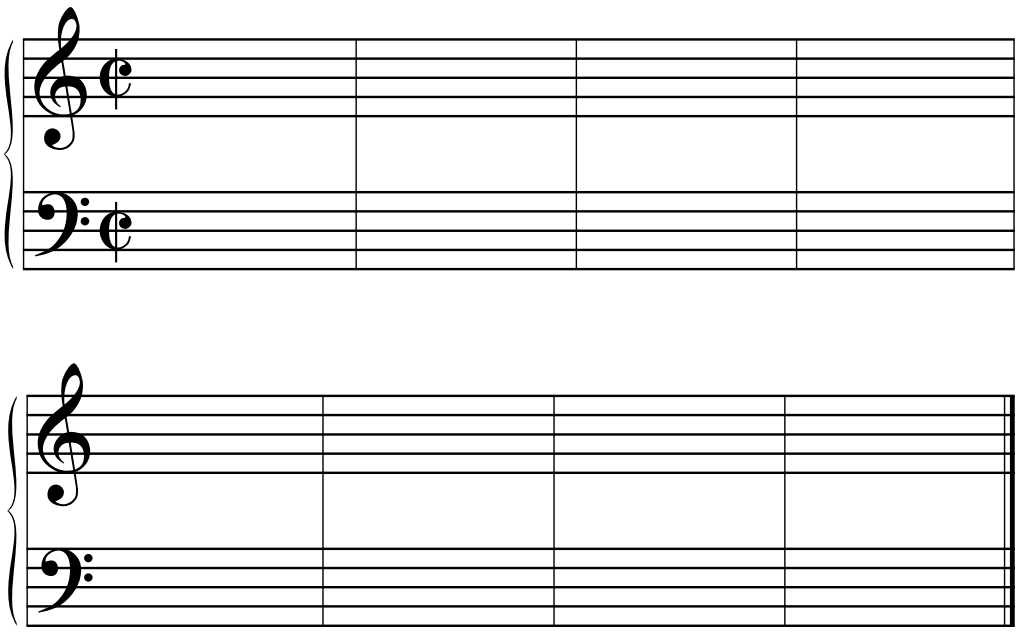
Example 1:



On the two grand staves below, please create a figured bass pattern (approximately eight measures total) with the appropriate Arabic numeral symbols below the bass line to indicate which harmonies will be inverted. After you have completed your figured bass, please harmonize your bass line by adding the tenor, alto, and soprano parts above.

Figured bass harmonization.

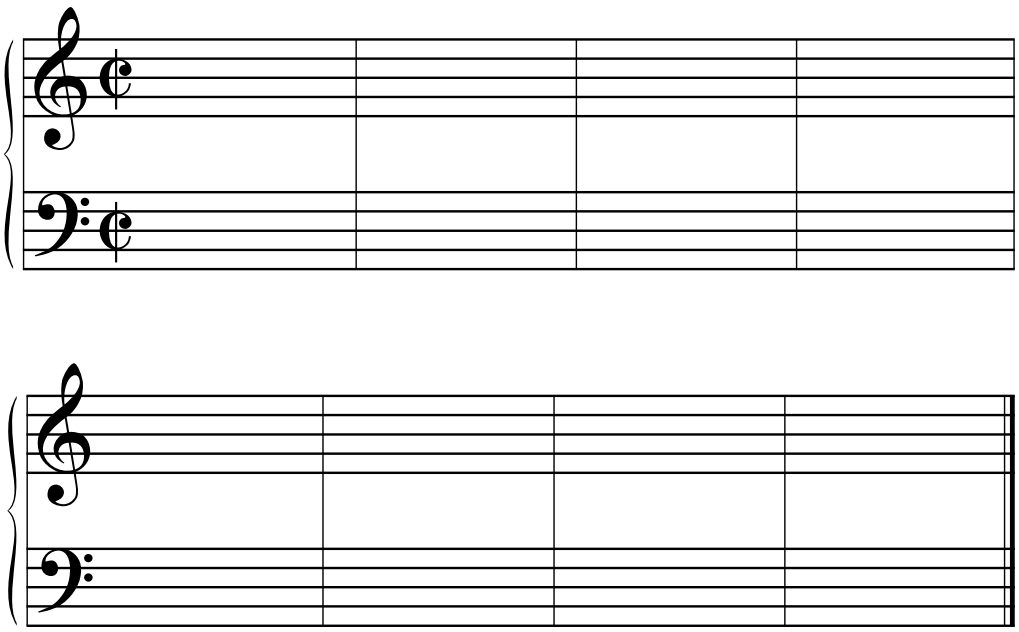
Example 2:



On the two grand staves below, please create a figured bass pattern (approximately eight measures total) with the appropriate Arabic numeral symbols below the bass line to indicate which harmonies will be inverted. After you have completed your figured bass, please harmonize your bass line by adding the tenor, alto, and soprano parts above.

Figured bass harmonization.

Example 3:



PART FOUR: BEYOND TRADITIONAL TONALITY

WORKBOOK

Chapter 53:
Atonality: An Overview

Overview on Atonality

Your music instructor will guide you to the appropriate listening and reading materials for one of the most controversial genres of music in the early 20th century. Below is a definition and overview of "atonality", which is followed by selected examples of atonal compositions and readings for your musical journey through atonality.

Atonality is the absence of one tonal center. It is the avoidance of the gravitational pull to one tonal center and its respective major or minor diatonic scales as well as tertian (also known as tertial) functional harmonies.

The breakdown of traditional tonality historically was a long and slow evolution. The incipience of atonality was established by composers' ubiquitous and incessant use of the chromatic scale melodically, and especially, harmonically within the diatonic framework. The chromatic explorations can be first heard as early as with the extraordinary chromatic progressions and emotionalism found in the Madrigals of Don Carlo Gesualdo (1560-1613, the infamous Prince of Venosa) of the Renaissance period. Chromaticism, especially in word painting in vocal music, will continue with the music of J. S. Bach of the Baroque as well as Mozart and Beethoven of the Classical period. Although limited in its use compared to the music of the Romantic period of the 19th century, it was nonetheless profound and challenging to the foundation of tonality. However, the pervasive use of the chromatic scale in the music of the 19th century Romantics, especially with Chopin, Liszt, Grieg, Wolf, and culminating with the unending melodies and harmonies as well as incessant tonicizations and modulations of Wagner's music eventually left composers no other place to venture tonally. Therefore, atonality was inevitable due to the highly chromatic music of 19th century composers, in particular, the music dramas of Richard Wagner.

After Wagner, it would be Claude Debussy as one of the first composers to create a broader tonal language, which would be an extremely nonsystematic and nonrestrictive approach to traditional tonal music. However, it would be Arnold Schoenberg who would abandon the systematic and restrictive relationships of tonal music altogether and venture to a "new world" of music called "atonality".

Historically, Schoenberg is cited as the primary composer responsible for eliminating the hierarchy of one tone being preeminent with traditional tertian harmonic formulas and diatonic scales. His new "atonal" compositional style resonates for the most part in the last movement of opus 10 and with the entire works of opus 11 through 22 (approximately beginning around 1907-1908), which predates his twelve-tone method of the early 1920's. Schoenberg and his followers, especially Webern, Wellesz, Kirchner, Dallapiccola, Cage, and to a lesser degree Alban Berg, during the 20th century created a new musical landscape that did not rely on traditional tonal means.

Chapter 53: Atonality: An Overview (continued)

Atonal composers also made a conscientious effort to have dissonance as an equal to consonance. They emancipated the dissonance from its shackles of traditional tonal music, so it no longer was subservient to consonance. In other words, composers did not rely on having a discordant relationship resolve to a consonant sound. Atonal composers also avoided functional tertian harmony (e.g., tonic and dominant relationships) or the use of tertian harmony altogether! They would also avoid the diatonic major and minor scales, as well as a traditional, functional, rigorous 17th and 18th century counterpoint.

Although many atonal works do include some form of hierarchical treatment of one or more tonal centers throughout their works (including some early music of Schoenberg and particular his pupil Alban Berg), they are quite disparate, abstract, and equivocal from the traditional tonality of the 17th and 18th century practice. One great example is Webern's Piano Variation, Opus 27, where it is constructed by a strict use of the twelve-tone row; however, the emphatic use of consecutive chromatic upper and lower leading tones to the note A and the repetition of the note A throughout the piece leads listeners to feel that a central pitch, the note A in this case, is preeminent, without any reliance on the diatonic major or minor scale.

As a result of 19th century composers, especially Wagner with his far-reaching melodic and harmonic chromatic explorations, the revolutionary atonal and twelve-tone music of Arnold Schoenberg paved the way and unlocked the doors for 20th century composers to examine the possibilities of the antithesis of tonality: "atonal music".

WORKBOOK

Chapter 54:
Atonality:
Selected Listening and Reading Guides

Selected Listening Guide (Discography) for Atonal Music

Arnold Schoenberg (1874-1951)

1. String Quartet No. 2 in F# with soprano, Op. 10, (last movement, 1908, revised 1921).
2. Three Piano Pieces, Op. 11 (1909).
3. "Ich darf nicht dankend", Op. 14, No. 1 (first song from a collection of songs for voice and piano, 1907-08).
4. "The Book of Hanging Gardens", Op. 15 (a collection of songs for voice and piano, 1908).
5. Five Pieces for Orchestra, Op. 16 (1909).
6. Six Little Piano Pieces, Op. 19 (1911).
7. Pierrot Lunaire, Op. 21 (1912).
8. Five Pieces for Piano, Op. 23 (1923).
9. Serenade, Op. 24 (1923).

Anton Webern (1883-1945)

1. Five Pieces for String Quartet, Op. 5.
2. Five Pieces for Orchestra, Op. 10.

Alban Berg (1885-1935)

1. Five Orchestral Songs on Picture-Postcard Texts of Peter Altenberg, Op. 4.
2. Wozzeck (Opera, 1917 – 1922).
3. Chamber Concerto (Music for Piano, Violin, and Thirteen Winds, 1925).
4. Lyric Suite (for String Quartet, 1926).
5. Lulu (Opera, unfinished orchestration part, 1929 – 1935).
6. Violin Concerto (1935).

Selected Reading Materials (Bibliography) for Atonal / Twelve-Tone Music

Kamien, Roger. Music: An Appreciation, Seventh Edition.

Part Seven: The Twentieth Century

Chapter 1: Musical Styles: 1900 – 1945, pp. 437 – 448.

Chapter 2: Music and Musicians in Society, pp. 449 – 452.

Chapter 8: Expressionism, pp. 481 – 483.

Chapter 9: Arnold Schoenberg, pp. 483 – 494.

Grout, Donald Jay. A History of Western Music, Revised Edition

Chapter 20: The Twentieth Century, pp. 662 – 727.

Stolba, K. Marie. The Development of Western Music.

Chapter 26: Expressionism / The Second Viennese School pp. 595 – 603.

Sadie, Stanley and Tyrell, John, Editors. The New Grove Dictionary of Music and Musicians.

Subjects to Read: 1. Atonality; 2. Expressionism; 3. Arnold Schoenberg.

Piston, Walter and DeVoto, Mark. Harmony, Fifth Edition.

Part Two: After Common Practice

Chapter 32: Extended Chromaticism, pp. 535 – 542.

WORKBOOK

Chapter 55:
Twelve-Tone Music: An Overview

Theoretical Perspective of the Twelve-Tone Technique

In the early 1920's, Arnold Schoenberg (1874 - 1951) created the 12-tone technique. Although Josef Matthias Hauer (1883—1959) also explored a similar technique, which he classed as a "trope", it is Schoenberg who is now recognized as the founder and developer of this 12-tone method. Schoenberg's goal was to develop a systematic method of the 12 tones as a means to organize his atonal works. His other objective with this method was to enable him to write more extended works without the aid of a text.

The 12-tone technique is also known as the dodecaphonic method ("dodeca" is a Greek word which means "twelve"). Another synonymous term is serialism (serial music), which will encompass a more broad definition with later composers, especially Milton Babbitt (1916--). Babbitt's contribution would not only serialize the twelve tones of the chromatic scale, but also serialize the other musical parameters, such as rhythm (duration), dynamics, timbre, and register. One excellent example of serialism by Milton Babbitt is his piano piece called "Semi-Simple Variations".

Schoenberg's 12-tone technique is a systematic method of organizing the 12 tones from the chromatic scale in a melodic contour. Therefore, 12-tone compositions are based on a special predetermined ordering of the 12 notes derived from a chromatic scale as a means of organizing the musical contents melodically and harmonically.

The organization of the 12 tones is referred to as a 12-tone series, set, or row. The manipulation of the 12-tone row includes four principal forms: 1. The original form (the term "Prime" or "Po" is referred to the original row not transposed). 2. The inverted form (inversion of the original). 3. The retrograde form (the original form backwards). 4. The retrograde of the inversion (the inverted form backwards). These four forms are abbreviated as: Original = O, Inversion = I, Retrograde = R, and Retrograde of the Inversion = R. I. A composer may transpose any of these four basic forms on any of the twelve pitches; therefore resulting in a total of 48 rows.

The 12-tone row does include some restrictions. Each tone in a composer's row cannot be repeated after it has been abandoned for a new note. After a note in the row has been played and left for another one, it cannot be repeated within the row until all the remaining tones have been presented. For example, the third note in a row cannot be played again after note four has been sounded. Note three must wait until notes four through twelve have been performed. However, note three can be repeated in succession within the row as many times as the composer chooses, as long as it comes before the fourth note. Also, any notes in the row, series, or set may be written in any octave or register of a particular instrument. This flexibility of a 12-tone row creates an infinite variety of melodic contours within a 12-tone work.

Another flexible use of the 12-tone method is using the tones not only melodically (linearly), but also harmonically (vertically), as long as a composer does not violate the convention of repetition within the row. When composing for many instruments or even a single instrument with multiple voices, such as a piano, a 12-tone row may be shared. For example, two instruments or the two hands on the piano may swap rows in order to create more variety and possible melodic and harmonic scenarios.

As stated earlier, Schoenberg used the 12-tone method as a means to avoid any traditional tonal center, along with symmetry and periodicity. For Arnold Schoenberg, the 12-tone method was to facilitate his new tonal language called atonality. However, it is quite possible, as few composers have done, to create a 12-tone work that completely sounds tonal and is governed by traditional tonal practice.

Historical Perspective and Selected Twelve-Tone Music Examples by Arnold Schoenberg

Although Arnold Schoenberg's early music was a continuation of the highly chromatic, romantic tonal language of Richard Wagner, Johannes Brahms, and Gustav Mahler, his music quickly evolved into a highly complex and chromatic tonal idiom that relied less on tertian harmony and traditional diatonic major and minor scales. Some selected examples of this new style that broke down traditional tonal music were Schoenberg's symphonic poem, Pelleas und Melisande (1903), Chamber Symphony, Op. 9 (1906), String Quartet No. 1 in D minor, Op. 7 (1905), and String Quartet No. 2 in F# with soprano, Op. 10 (1908, revised 1921). Other examples but written for piano include Three Piano Pieces, Op. 11 (1909), Six Little Piano Pieces, Op. 19 (1911), and Five Piano Pieces, Op. 23 (1923). Schoenberg's songs from Opus 14, especially "Ich darf nicht dankend", Op. 14, No. 1 is his last composition to use a key signature alluding to tonality in a very abstract and nontraditional manner. In these works, Schoenberg's exploration with vagrant harmonies (such as quartal harmonies and other complex non-tertian harmonic structures) juxtaposed with traditional tertian harmonies evoked, as Schoenberg described, "an expression of a mood". Along with a highly chromatic idiom, Schoenberg integrated vagrant harmonies as a tonal identity that would eventually break down traditional tonality.

Although some musicologists/theorists believe Schoenberg's Atonal period began with the last movement of his String Quartet No. 2 in F# with soprano, Op. 10, they definitively agree by Opus 15 that Schoenberg systematically eliminated tonality completely. By 1908, Schoenberg finally abandons the key signature altogether beginning with the work "The Book of Hanging Gardens", Op. 15 (a collection of songs for voice and piano), and frees himself from traditional tonality. Most theorists agree, beginning with Opus 15, as Schoenberg's true "atonal" style. A term he did not accept and preferred to call as pantonal music (inclusive of all tones). [Please read the overview on "Atonality"]. In addition to the atonal Opus 15, Schoenberg would compose several more successful atonal compositions, the most popular would be Five Pieces for Orchestra, Op. 16, (1909) and Pierrot Lunaire, Op. 21, (1912).

In the early 1920's, Schoenberg created the 12-tone method as a means to organize his atonal compositions as well as to enable him to write more extended works without the aid of a text. His new technique was applied partially in Five Piano Pieces, Op. 23 (1923), and his Serenade, Op. 24 (1923). Not until Schoenberg's Suite for Piano, Op. 25 (1923), would he incorporate his 12-tone method throughout the entire work. Other popular works that followed using the 12-tone technique were "Variations for Orchestra" (1928) and later, an opera with the third act unfinished, "Moses und Aron" (1930-1932). Schoenberg's later 12-tone pieces were composed after arriving in the United States in 1933. The most popular of these works were the Violin Concerto, Op. 36, (1936); the Fourth String Quartet, Op. 37 (1936); the Piano Concerto, Op. 42 (1942); and his influential and powerful Expressionistic Cantata named "A Survivor from Warsaw", Op. 46 (1947).

Schoenberg's most popular European students were Anton Webern (1883-1945) and Alban Berg (1885-1935). Both students followed in Schoenberg's footsteps creating 12-tone music. A selected few of Webern's early 12-tone pieces were Three Songs, Op. 17 (1924), Symphony, Op. 21 (1934), and Variations for Piano, Op. 27 (1936). Although Berg's second opera, Lulu (1929-1935), used the 12-tone row more strictly as his teacher Schoenberg, this was not characteristic of most of his 12-tone works. Berg used the 12-tone row more loosely and differently than Schoenberg and Webern. For example, Berg's String Quartet called "Lyric Suite" (1926) and his first opera, "Wozzeck" (1917-1921), included a more pseudo or partial use of the 12-tone row system. The most striking difference in Berg's use of the 12-tone row is when he employed it with a more tonal background. His final composition, Violin Concerto (1935), demonstrates a deliberate construction of a 12-tone row, which creates tonal implications. His 12-tone set includes triads and seventh chords, built from tertian harmonies. In this unique work, the 12-tone system serves both atonality and tonality with neither predominating over the other.

Chapter 55: Twelve-Tone Music: An Overview (continued)

In addition to Schoenberg's European pupils, some other selected famous composers who adopted Schoenberg's 12-tone technique were Pierre Boulez (1925--), Karlheinz Stockhausen (1928--), Igor Stravinsky (1882-1971, applied after 1950), Ernst Krenek (1900--?), Aaron Copland (1900-1990), Olivier Messiaen (1908--?), and Milton Babbitt (1916).

The legacy of Arnold Schoenberg's expressionistic, atonal music with or without the 12-tone technique as well as his theoretical writings has been enormous. Not only as a composer and writer, but also as a teacher, Schoenberg's influence has been so profound throughout the world that Universities and Colleges, especially throughout the United States, revere his musical style as one of many genres to be taught and learned.

WORKBOOK

Chapter 56:
Twelve-Tone Music:
Selected Listening and Reading Guides

Selected Listening Guide (Discography) for 12-Tone Music

Arnold Schoenberg (1874-1951)

1. Suite for Piano, Op. 25 (1923).
2. Moses and Aaron (1930—1932. An Opera, third act incomplete).
3. Variations for Orchestra (1928).
4. Violin Concerto, Op. 36 (1936).
5. Fourth String Quartet, Op. 37 (1937).
6. Piano Concerto, Op. 42 (1942).
7. A Cantata, "A Survivor from Warsaw", Op. 46 (1947).

Anton Webern (1883-1945)

1. Three Songs, Op. 17 (1924).
2. Symphony, Op. 21 (1934).
3. Variations for Piano, Op. 27 (1936).
4. Cantata, No. 1 (1939).
5. Cantata, No. 2 (1943).
6. Variations for Orchestra, Op. 30 (1940).

Alban Berg (1885-1935)

1. Lulu (Opera, unfinished orchestration part, 1929 – 1935).

Chapter 56: Twelve-Tone Music:
Selected Listening and Reading Guides
(continued)

Luigi Dallapiccola (1904-1975)

1. Christmas Concerto 1956 (Solo voice and orchestra, 1956).

Olivier Messiaen (1908--?)

1. Mode de valeurs et d'intensites (Late 1940's, strict serialism).

Pierre Boulez (1925--?)

1. Le Marteau sans maitre (1954, revised 1957. A more relaxed form of total serialism).

Milton Babbitt (1916--?)

1. Three Compositions for Piano (1948).
2. Semi-Simple Variations (Theme and Five Variations for Piano, 1956).

Other Successful, Selected Composers Who Used The 12-Tone Method

1. Karlheinz Stockhausen (1928--?).
2. Ernst, Krenek (1900--?).
3. Igor Stravinsky (1882-1971. The 12-tone technique applied after 1950).
4. Aaron Copland (1900-1990).

Chapter 56: Twelve-Tone Music:
Selected Listening and Reading Guides
(continued)

Partial / Pseudo 12-Tone Music

Arnold Schoenberg (1874-1951)

1. Five Piano Pieces, Op. 23 (1923).
2. Serenade, Op. 24 (1923).

Alban Berg (1885-1935)

1. Lyric Suite (for String Quartet, 1926).
2. Violin Concerto (1935).
3. Wozzeck (Berg's first Opera, 1917-1921).

Chapter 56: Twelve-Tone Music:
Selected Listening and Reading Guides
(continued)

Selected Reading Materials (Bibliography) for Twelve-Tone Music

1. Kamien, Roger. Music: An Appreciation, Seventh Edition.

Part Seven: The Twentieth Century

Chapter 9: Arnold Schoenberg, pp. 483 – 494.

Grout, Donald Jay. A History of Western Music, Revised Edition

Chapter 20: The Twentieth Century, pp. 662 – 727.

Stolba, K. Marie. The Development of Western Music.

Chapter 26: Expressionism / The Second Viennese School pp. 595 – 603.

Sadie, Stanley and Tyrell, John, Editors. The New Grove Dictionary of Music and Musicians.

Subjects to Read: 1. Twelve-Tone Technique; 2. Atonality; 3. Expressionism; 4. Arnold Schoenberg.

Piston, Walter and DeVoto, Mark. Harmony, Fifth Edition.

Part Two: After Common Practice

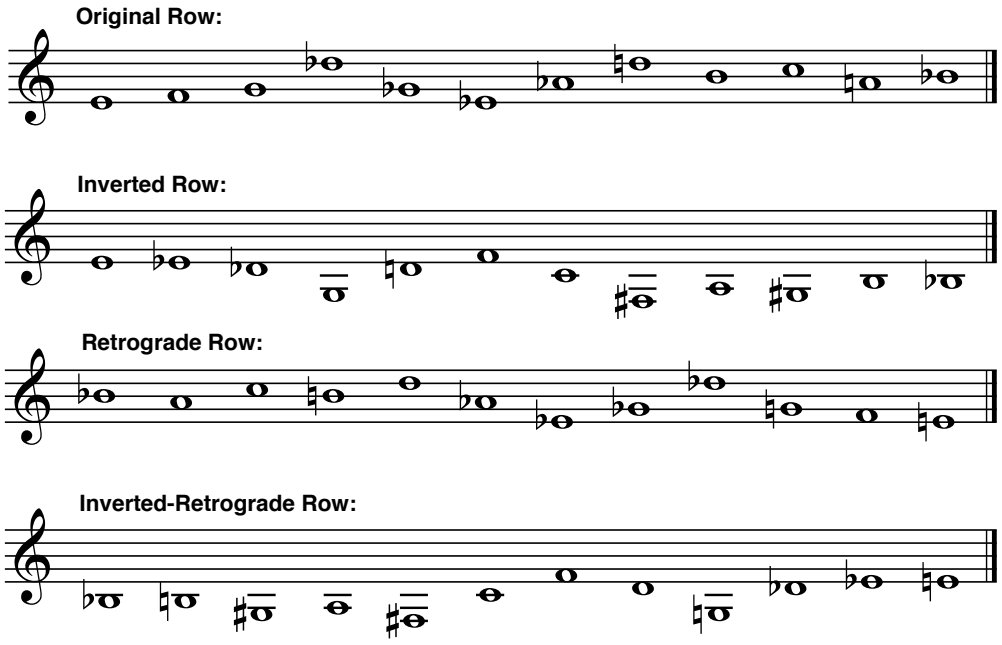
Chapter 32: Extended Chromaticism, pp. 539 – 542.

WORKBOOK

Chapter 57:
Twelve-Tone Music:
A 12-Tone Row By Arnold Schoenberg

Below is a twelve-tone row that Schoenberg used in the Suite for Piano, Op. 25, (1923). It is his first composition that he used the 12-tone set throughout the entire work.

12 Tone (Dodecaphonic) Row



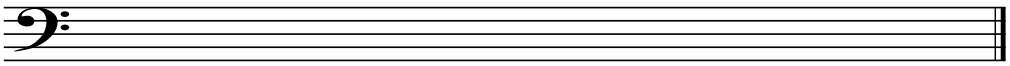
WORKBOOK

Chapter 58:
Twelve-Tone Music:
Create Your Own 12-Tone Row

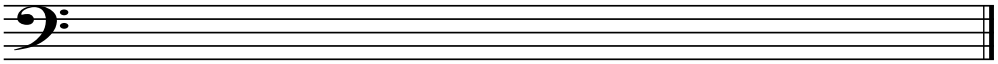
Before doing this assignment online, you may by hand create below in whole notes a twelve-tone row and its permutations.

An Original Twelve-Tone (Dodecaphonic) Row

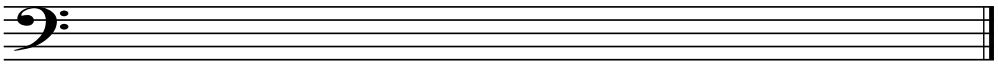
Original Row:



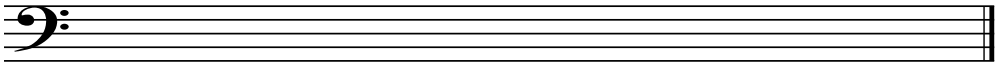
Inverted Row:



Retrograde Row:



Retrograde-Inversion Row:

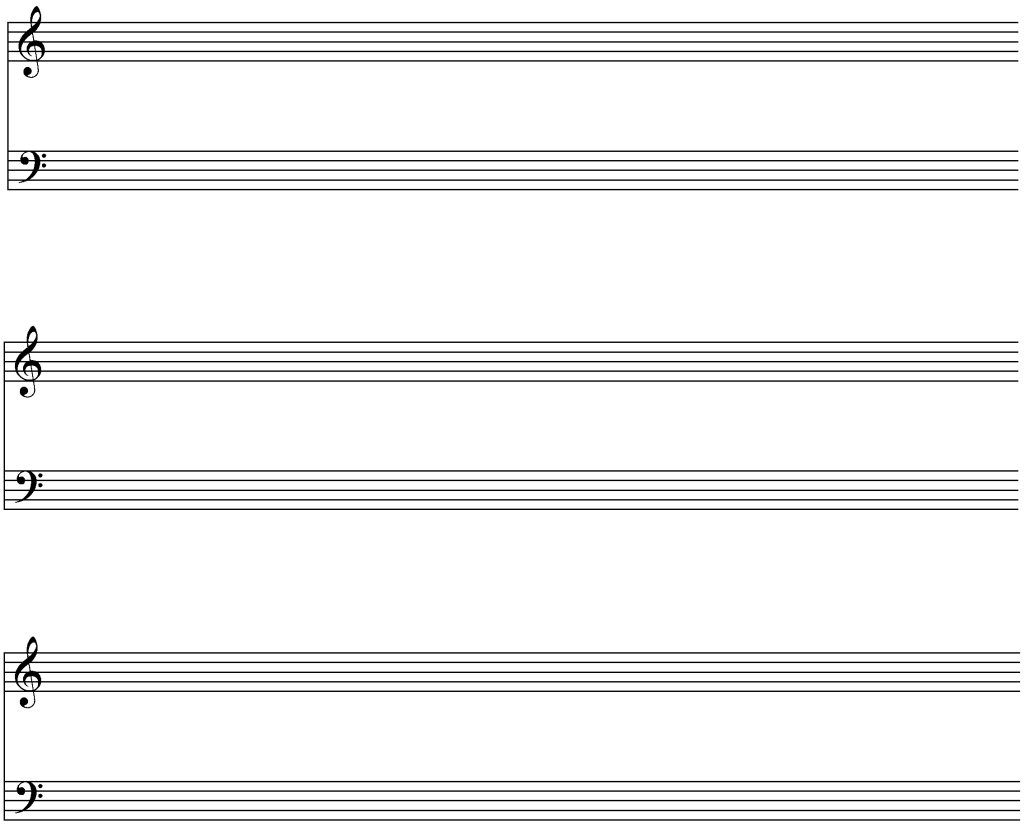


WORKBOOK

Chapter 59:
Twelve-Tone Music:
Add Counterpoint to Your 12-Tone Row

Adding a Second Voice as Counterpoint to Your Original 12-Tone Row (Do Not Use Any Rhythm in Both Voices)

A student may use any two forms of their created 12-tone row as well as its 48 transpositions for its primary melody and counterpoint.

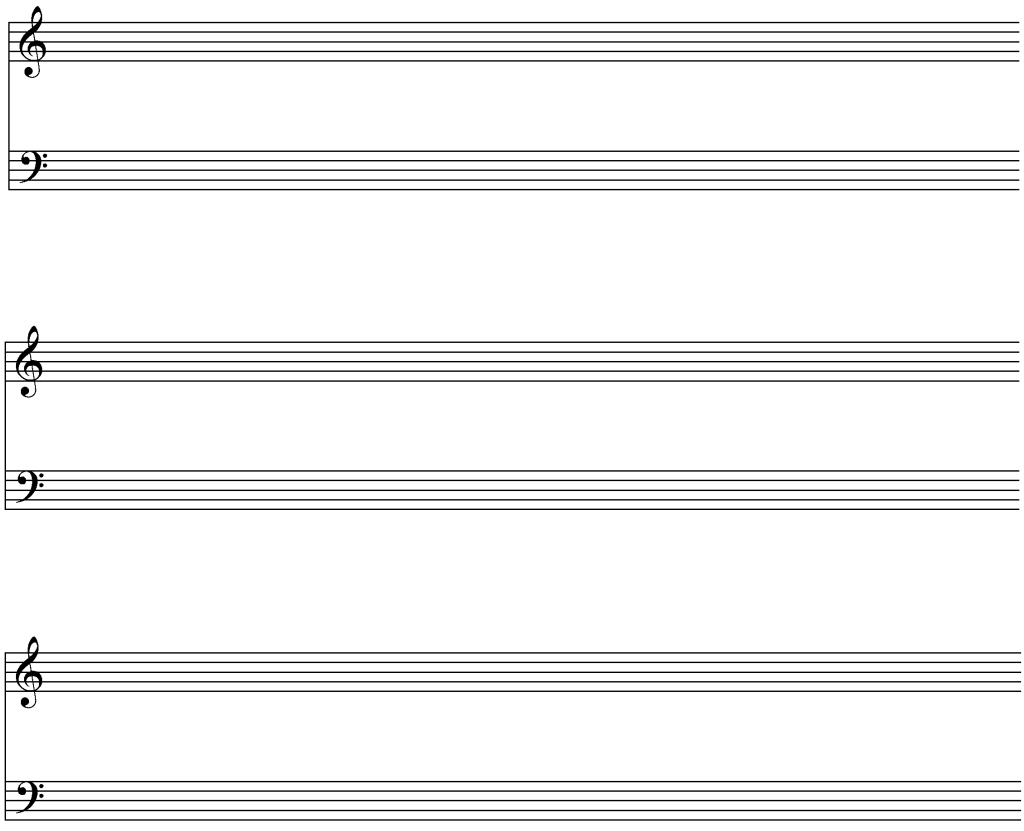


WORKBOOK

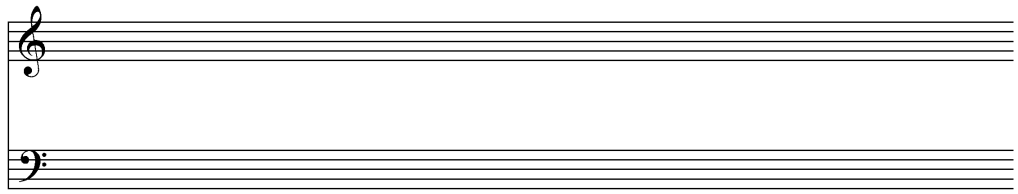
Chapter 60:
Twelve-Tone Music:
Creating a Melodic Contour with Your 12-Tone Row

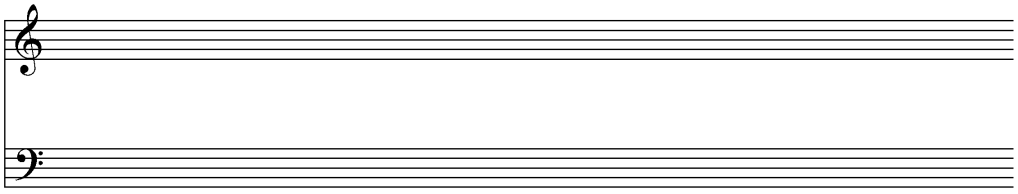
Using Your 12-Tone Row, Create a Melodic Contour with Rhythm

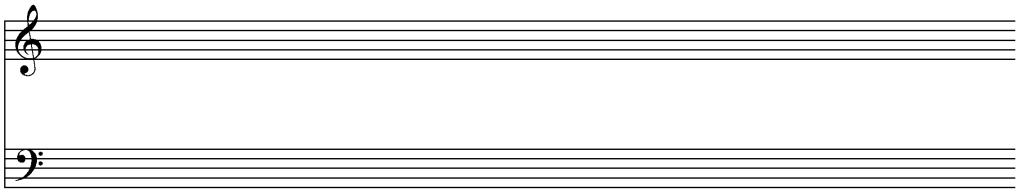
Please take the previous exercise with your row and its counterpoint in whole notes and add a melodic contour with an interesting rhythmic design to compliment your row.



Using Your 12-Tone Row, Create a Melodic Contour with Rhythm (continued)







WORKBOOK

Chapter 61:
Twelve-Tone Music:
Guideline for Composing a 12-Tone Composition

Guideline for Composing a 12-Tone Composition

When composing a 12-tone composition, please include the following musical elements:

Timbre (tone color): When composing 12-tone works for more than one instrument, composers should stress tone color as preeminent. Timbre should be integrated and interwoven not only texturally, but also melodically, rhythmically, and harmonically. If composing for one single instrument, such as the piano or flute, the composer should manipulate, permutate, explore, and exploit the entire pitch range as well as its extended techniques that is inherent to each instrument. For example, a flutist can play his/her instrument not only in a traditional manner, but can also include nontraditional techniques, such as fluttertongue and harmonics as well as exploit extreme high and low registers to create new timbral effects.

Scales: When writing 12-tone music, the chromatic scale should be exclusively used. It should be arranged in a melodic contour that will avoid any harmonic or tonal implications. The 12-tone melody, which is derived from the chromatic scale, should avoid at all cost traditional major or minor scales or outlining any traditional, stable harmonies or harmonies that imply a resolution; i.e., dominant seventh or full-diminished seventh chords.

Melody: Melodies should be angular, disjunct, jagged, and without any sense of resolve. Usually, 12-tone melodies are complex in structure; therefore, they are difficult to sing or memorize. They should also be very rhythmic and unpredictable. A composer's melodic phrase should be void of symmetry and periodicity that is often associated with tonal music. For example, in a traditional tonal piece, a four bar consequent phrase often follows an antecedent phrase of four measures. In atonal or 12-tone music, the melodic phrases may be irregular and asymmetrical in length.

Rhythm: Rhythms should be equivocal, irregular, and unpredictable. A rhapsodic and improvisatory feel is welcomed. Twelve-tone compositions include rhythms that are so complex, that it is difficult to discern a regular, conventional steady beat. Barlines are often used mainly for reading purposes and organization, less for the stress of a given beat. Often tied notes, dotted rhythms, and a variety of disparate rhythmic figures are good to disguise a regular beat. In addition, it is very good to combine varying rhythmic groupings to create polyrhythmic patterns.

Meter: Twelve-tone music often has "changing meters" or irregular, asymmetrical meters to avoid any strong and regular metrical pattern. Exotic, nontraditional (non Western) meters with unusual, uneven number of beats within a measure, such as four and a quarter beats, three and a half beats, or two and three-quarter beats often allow contrast, complexity, and unpredictability when used with or without traditional meters.

Chapter 61: Guideline for Composing a 12-Tone Composition (continued)

Form: For obvious reasons, traditional Sonata-Allegro, Rondo, Minuet and Trio, and Rounded Binary are only a few musical structures or forms that depend on strong harmonic implications; therefore, they are usually moot in 12-tone compositions in a traditional sense. They have been used, however, in a broader, non-traditional way as a means to organize their musical ideas. A musical form that has worked well with 12-tone music is the Through Composed Form, also known as Continuous Form. The Through Composed Form is often, along with binary, tripartite (ternary), and theme and variation forms, a popular form and design for 12-tone works. In addition, repeating thematic/harmonic 12-tone materials in a contrapuntal, imitative (fugal) form and design is also acceptable. Composers often avoided symmetry and periodicity that was often associated with tonal music and their musical forms. For example, a balanced 16 bar A section followed by a 16 bar B section in traditional tonal music was no longer necessary in atonal music.

Tonality: Avoid any traditional 17^{th} and 18^{th} century tonality where one tone is preeminent over all other tones. Do not systematically stress one particular tone with its respective diatonic major or minor chord and scale. All tones are respectively equal to one another; therefore, avoid perfect octaves, perfect fifths, or any interval (e.g. a tritone and its resolution) that may imply one tone as more important than another. In Lieu of tonality, "atonality" (the absence of one tonal center) is often associated with 12-tone music.

Texture: Polyphonic texture is best, especially if it is written in a dense contrapuntal style. But a monophonic texture is often acceptable when used as a contrast to a polyphonic texture or in a solo work. A homophonic texture is also acceptable as long as the harmonies are non-tertian. For example, avoid major and minor triads, which demonstrate stability and hierarchical relationships and use chord clusters or other forms of harmonies built by other intervals other than thirds when using a homophonic texture. Also, avoid the resolution of augmented and diminished triads as well as dominant seventh and diminished seventh chords to their respective tonic note or chord.

Harmony: A composer must avoid tertian (tertial) harmonies, such as major and minor triads. As explained above, major and minor triads that demonstrate stability and hierarchical relationships must be avoided at all cost. In addition, avoid resolution of augmented and diminished triads that often convey tension that requires resolution to a stable harmony. When using the augmented and diminished triads, they should be used as independent identities and not for its traditional and functional use. Chords with four or more tones, in particular, seventh chords (especially the dominant seventh and full-diminished seventh chords that have a strong pull to a tonic), should always be avoided. Harmonies that are often accepted in 12-tone music are chord clusters of minor and/or major seconds; clusters of seconds can also be used in open positions by way of their inversions (minor and major sevenths), which are also most welcomed and very effective harmonically. Any other chords that are dissonant and do not have traditional harmonic functions are recommended, for example, quartal, quintal, and other intervallic combinations thereof are widely used as well. Overall, if the harmony exudes mild or harsh dissonance that does not have any harmonic implications, it is considered good.

Chapter 61: Guideline for Composing a 12-Tone Composition (continued)

Cadences: Avoid clear and symmetrical, balanced cadences, which include any tonal implications, especially a V—I resolution.

Ostinato Patterns: Ostinato patterns are acceptable as long as they do not intentionally strengthen tonal principals. For example, an alberti bass outlining a tonic triad incessantly, or ostinato patterns and/or pedal points that emphatically reinforce the dominant and tonic notes.

WORKBOOK

Chapter 62:
Impressionism: An Overview

Historical Perspective of Impressionism

The weakening of tonality due to 19th century chromaticism, especially with Wagner's far-reaching chromatic explorations was the impetus for Debussy's music to evolve into a new and suigeneris tonal perspective. Although his admiration for Wagner was both positive and negative, Claude-Achille Debussy (1862-1918) had traveled twice in the summer of 1888 and 1889 to Bayreuth, Germany, to listen to the Operas of Richard Wagner.

Debussy was also influenced in 1889 by the Asian music performance at the Paris International Exposition. The sounds, instruments, and scales of Javanese music from Indonesia were especially influential to him. When composing music in his new style, which was coined as Impressionism, he often implemented aspects and elements of music from the East. Although Debussy did not favor the label "Impressionism" to his music, it is most likely that he also revered Impressionistic painters, such as Camille Pissarro (1830-1903), Auguste Renoir (1841-1919), and the most famous Claude Monet (1840-1926). In addition to Impressionistic painters, Debussy was also enamoured by Impressionistic poets who were labeled as "Symbolists". The most popular symbolist poets were Stephane Mallarme (1842-1898), Paul Verlaine (1844-1896), and Arthur Rimbaud (1854-1891). Not only did Debussy used Mallarme's poem for his Prelude to the Afternoon of a Faun, but they were also friends in Paris. He also would compose many songs set to poems by Paul Verlaine, whose mother was Debussy's first piano teacher. The style of Impressionistic paintings and Symbolist poetry had undoubtedly an important impact and effect on Debussy and other 20th century composers.

Debussy was not the only musician to compose Impressionistic works. Two notably important composers were Maurice Ravel (1875-1937) and Paul Dukas (1865-1935). Although Paul Dukas works are more closely associated with the styles of the French composers Franck and d'Indy as well as the German composer Wagner, Dukas did have some traces of Impressionism in selected works. Paul Dukas' opera "Ariadne and Bluebeard" is probably his closes work that has resemblance and share some characteristic elements of Debussy's Impressionistic music, although it also includes more symphonic drama of d'Indy and Wagner. However, it was Maurice Ravel who wrote more music with a stronger and more striking sound of Impressionism than Dukas. Although Ravel is known more as a Neo-Classical composer for his distinct symmetrical melodic contours, rhythms, and musical form and design, he shared more Impressionistic elements tantamount to Debussy's style than any other composer. His brilliant and colorful timbre in his orchestral pieces equaled with Debussy. To some extent, Ravel's orchestral suite "Rapsodie Espagnole" (1907) and the ballet "Daphnis et Cloe" (1909-1911) include apparent Impressionistic elements. There are, however, a few selected piano works by Ravel, which reveal the most characteristic style of Impressionism. These Impressionistic piano works by Ravel that match Debussy are "Jeux d'eaux" ("Fountains", 1901); a group of five piano pieces entitled "Mirroirs" (1905); and another group of three piano pieces called "Gaspard de la nuit" (1908). [Read Chapter 63: Impressionism: Selected Listening and Reading Guides for the titles of the individual piano pieces]. Despite the wonderful Impressionistic music of other 20th century composers, Claude Debussy single handedly captured above all the beautiful essence of Impressionism.

Debussy, along with several other early 20th century composers, was one of the first great composers to react strongly toward the restrictive and systematic relationships of traditional tonal music. Unlike Arnold Schoenberg's atonal explorations, Debussy's music still evolved around tonal relationships, but with a

more broad tonal language that was meticulously controlled but extremely nonsystematic [As discussed in Chapter 65: Guideline for an Impressionistic Composition]. Debussy's contribution to the extension of tonal music is extremely broad. Even before his Impressionistic period, Debussy was making alternate choices for supporting the tonic chord. For example, in "Claire de Lune", Debussy avoids the V—I progression at the conclusion of his work. In lieu of the dominant as the penultimate chord, he chose an F-flat major triad (the flat mediant degree) of the scale to progress to the final tonic chord, D-flat major.

When Debussy began composing his misty, fluid, floating, and atmospheric Impressionistic music, he used exotic and foreign scales, such as the pentatonic, whole-tone, synthetic/artificial, and pseudo-modal scales throughout his works as one of many means to weaken traditional tonality. His emphatic stress on timbre through transparent and varied orchestration is prevalent in his Impressionistic orchestral music, such as, "Prelude to the Afternoon of a Faun". Timbre is also exploited in his piano music by way of his frequent use and overlapping of the damper pedal, blending chords together and allowing them to resonate to create a rich gong-like or bell-like sound. As in Debussy's orchestral music where he discretely used soloistic instruments, exploiting their sonorous as well as their extreme unusual registers, he exploited the entire pitch range of the piano as well.

In addition to his timbre, Debussy's rhythms and changing meters were his way of producing a spontanteous, fluid, and free rythmic flow that leaves an impression that there are no barlines (as though the music was improvised). Debussy's unconventional use of parallelism and dissonance were revolutionary. He refused to resolve his dissonances, using them simply as color to his already complexed harmonies that were often five to six notes. Pedal points, which often added dissonance and color to his music, were very common, especially in his Impresionistic piano music, e.g., "Violes" from the Prelude for Piano, Book One, 1910. In addition to his extended and sometimes dissonant harmonies, Debussy used them as sonorous, rich, and sensuous identities. Debussy's harmonies played a preeminent role as for its color in lieu of its function. All the aforementioned elements Debussy incorporated in his music were another extension to Debussy's deliberate means to weakened traditional tonality and created a new and suigeneris musical genre in the early 20th century.

WORKBOOK

Chapter 63:
Impressionism:
Selected Listening and Reading Guides

Selected Listening Guide (Discography) to Impressionistic Compositions

Claude-Achille Debussy (1862-1918)

Prelude a l'Apres-midi d'un faune ("Prelude to the Afternoon of a Faun" for Orchestra, 1894).

Pelleas et Melisande (Opera, 1902).

Voiles ("Sails", Prelude for Piano, Book One, 1910).

Images pour piano – Livre I (between 1903-1913).
- No. 1: Reflects dans l'eau
- No. 2: Hommage a Rameau
- No. 3: Mouvement

Estampes (for piano, between 1910-13).
- Movement One: Pagodes
- Movement Two: La Soiree dans Grenade
- Movement Three: Jardins sous la pluie

L'Isle Joyeuse (approximately 1905).

La plus que lente (1910).

Chapter 63: Impressionism:
Selected Listening and Reading Guides
(continued)

Maurice Ravel (1875–1937)

Jeux d'eaux ("Fountains" for piano, 1901).

Mirroirs (for piano, 1905).
- Movement One: Noctuelles
- Movement Two: Oiseaux Tristes
- Movement Three: Une Barque sur l'ocean
- Movement Four: Alborada del Gracioso
- Movement Five: La Vallee des Cloches

Gaspard de la nuit (for piano, 1908).
- Movement One: Ondine
- Movement Two: Le gibet
- Movement Three: Scarbo

Rapsodie Espagnole (Orchestral Suite, 1907).

Daphnis et Cloe (Ballet, 1909-1911).

Other Pseudo-Impressionistic Pieces

Romantic/Impressionistic Hybrid Style

Reverie (Piano Piece, Claude Debussy, 1890).

Ariane et Barve-bleue (Opera, Paul Dukas; 1907).

In the Mist of My Dreams (Piano Piece, William Cratty, 1977).

Warm Are the Thoughts (Song for Mezzo Soprano and Piano, William Cratty, 1978).

Impressionistic/Modern Hybrid Style

Melody in the Mist from Mikrokosmos, Book IV, No. 107 (Piano Piece, Bela Bartok).

Three Pieces for Orchestra, No. 1, Second Movement (Orchestral Work, William Cratty, 1981-82).

Chapter 63: Impressionism:
Selected Listening and Reading Guides
(continued)

Selected Reading Materials (Bibliography) for Impressionistic Music

1. Kamien, Roger. Music: An Appreciation, Seventh Edition.

Part Seven: The Twentieth Century

Chapter 1: Musical Styles: 1900 – 1945, pp. 437 – 448.

Chapter 2: Music and Musicians in Society, pp. 449 – 452.

Chapter 3: Impressionism, pp. 452 – 454.

Chapter 4: Claude Debussy, pp. 454 – 463.

2. Grout, Donald Jay. A History of Western Music, Revised Edition

Chapter 19: The End of an Era: New Currents in France, pp. 648 – 659.

3. Stolba, K. Marie. The Development of Western Music.

Chapter 25: Late Nineteenth-Century and Early Twentieth-Century Music: France, pp. 561 – 571.

4. Piston, Walter and DeVoto, Mark. Harmony, Fifth Edition.

Part One: Tonal Harmony in Common Practice

Chapter 5: Tonality and Modality, pp. 52 – 70.

Part Two: After Common Practice

Chapter 29: Harmonic Practice Historically Considered, pp. 457 – 465.

Chapter 30: Extensions of Common Practice, pp. 464 – 487.

Chapter 31: Scalar and Chordal Types, pp. 527 – 542.

5. Sadie, Stanley and Tyrell, John, Editors. The New Grove Dictionary of Music and Musicians.

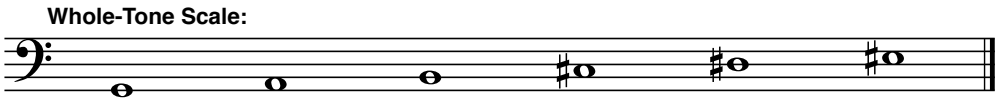
Subjects to Read: 1. Impressionism; 2. Claude Debussy; 3. Maurice Ravel.

WORKBOOK

Chapter 64:
Impressionism: Scales

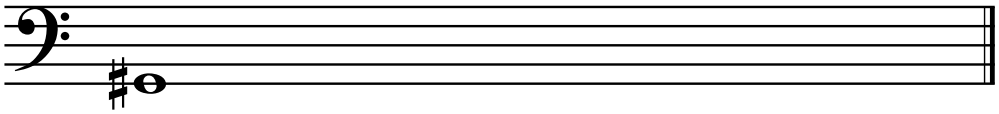
Overview of Selected Impressionistic Scales

Whole-Tone Scale

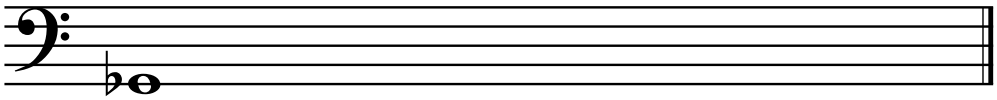


Example:

Please create an example of a Whole-Tone Scale beginning on a sharp key:



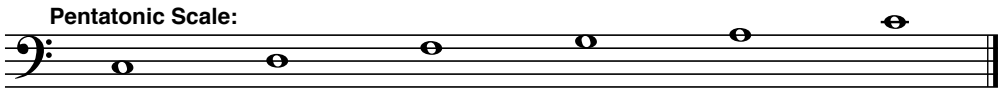
Please create an example of a Whole-Tone Scale beginning on a flat key:



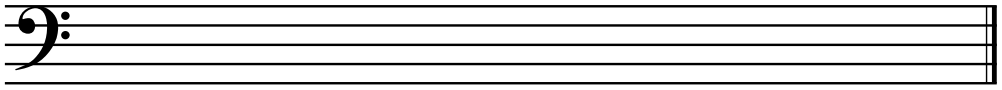
There are two very popular pentatonic scales from Asia. In Japan particularly, the two most common scales used in their music (excluding older music genres from the Gagaku orchestra and Buddhist chanting) both include five different tones with steps and skips. One pentatonic scale includes primarily semitones and major thirds, while the other (originally from China) employs whole steps and minor thirds. They are respectively called (from Japan) the "In" scale (e.g., C—D flat—F—G—A flat; includes a half step, major third, whole step, and half step) and the "Yo" scale (e.g., C—D—F—G—A; includes a whole step, minor third, whole step, and whole step). Below is a written example of the Yo pentatonic scale, which is often heard in Japanese folk songs and early popular songs as well as being very common in many other Asian cultures. Use the Yo pentatonic scale as a reference to transpose it below on another pitch.

Pentatonic Scale

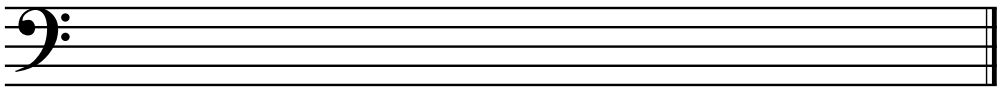
Example:



Please create an example of a Pentatonic Scale beginning on a sharp key:

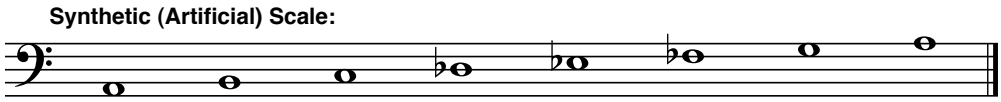


Please create an example of a Pentatonic Scale beginning on a flat key:

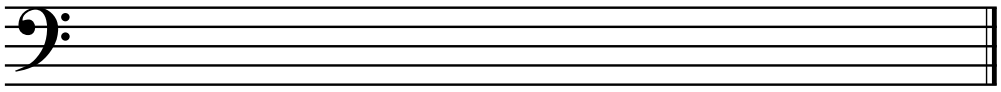


Synthetic (Artificial) Scale

Example:



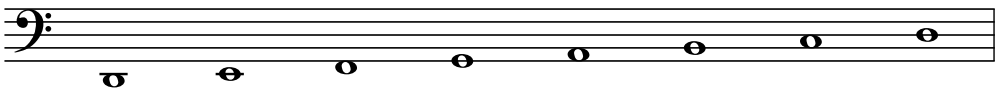
Please create an example of a Synthetic (Artificial) Scale beginning on any tone:



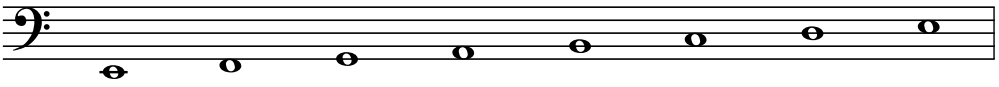
Traditional Modes

Below are a few important traditional Modal Scales that were either used in its original form, or more often, permutated as Pseudo-Modal Scales for Impressionistic music.

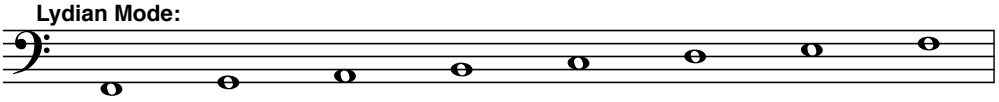
Dorian Mode:



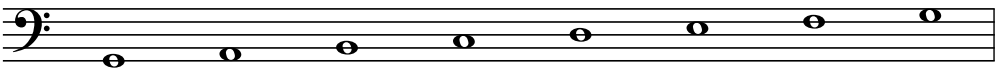
Phrygian Mode:



Lydian Mode:

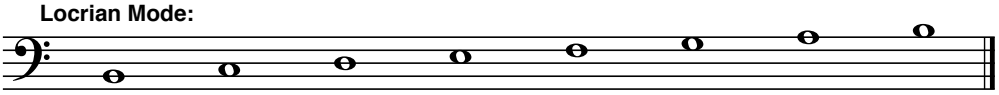


Mixolydian Mode:



Aeolian Mode:

Locrian Mode:



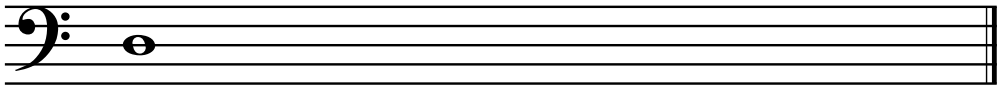
Pseudo-Modal Scales

Please create below a few examples of a Pseudo-Modal scale based on the traditional modes as discussed above by altering one or two tones only.

Create a Pseudo-Modal Scale from the D Dorian mode by altering one or two tones only.

Important Note: Please remember that one only needs to change one or more tones to make a traditional modal scale to a traditional major or minor scale; therefore, be cognizant of which tone(s) you choose. For example, if one lowered the sixth degree (B-natural to B-flat) of a D Dorian mode, the mode would become a D natural minor scale.

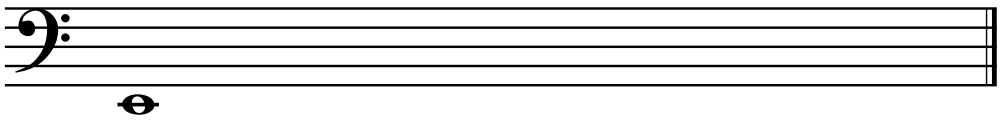
Another example is if one raised the third and seventh degrees (F-natural and C-natural to F-sharp and C-sharp respectively) of a D Dorian mode, the mode would become a D major scale.



Please create an example of a Pseudo-Modal Scale based on the E Phrygian mode by altering one or two tones only.

Important Note: Please remember that one only needs to change one or more tones to make a traditional modal scale to a traditional major or minor scale; therefore, be cognizant of which tone(s) you choose. For example, if one raised the second degree (F-natural to F-sharp) of an E Phrygian mode, the mode would become an E natural minor scale.

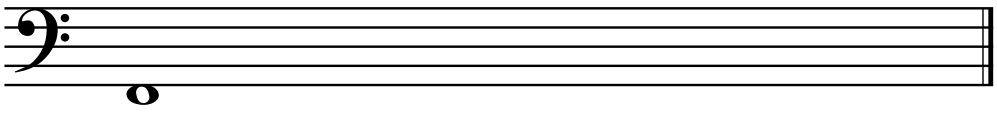
Another example is if one raised the second, third, sixth, and seventh degrees (F-natural, G-natural, C-natural, and D-natural to F-sharp, G-sharp, C-sharp and D-sharp respectively) of an E Phrygian mode, the mode would become an E major scale.



Please create an example of a Pseudo-Modal Scale based on the F Lydian mode by altering one or two tones only.

Important Note: Please remember that one only needs to change one or more tones to make a traditional modal scale to a traditional major or minor scale; therefore, be cognizant of which tone(s) you choose. For example, if one lowered the fourth degree (B-natural to B-flat) of a F Lydian mode, it would become an F major scale.

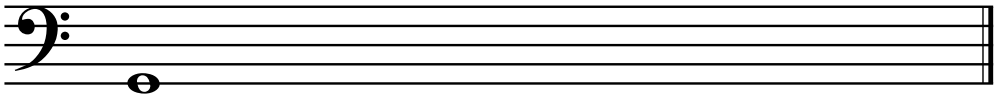
Another example is if one lowered the third, fourth, sixth, and seventh degrees (A-natural, B-natural, D-natural, and E-natural to all flatted notes) of a F Lydian mode, it would become a F natural minor scale.



Please create an example of a Pseudo-Modal Scale based on the G Mixolydian mode by altering one or two tones only.

Important Note: Please remember that one only needs to change one or more tones to make a traditional modal scale to a traditional major or minor scale; therefore, be cognizant of which tone(s) you choose. For example, if one raised the seventh degree (F-natural to F-sharp) of a G Mixolydian mode, it would become a G major scale.

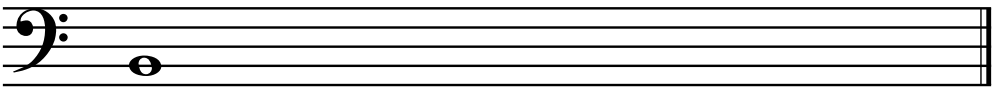
Another example is if one lowered the third and sixth degrees (B-natural and E-natural to flatted notes) of a G Mixolydian mode, it would become a G natural minor scale.



Please create an example of a Pseudo-Modal Scale based on the B Locrian mode by altering one or two tones only.

Important Note: Please remember that one only needs to change one or more tones to make a traditional modal scale to a traditional major or minor scale; therefore, be cognizant of which tone(s) you choose. For example, if one raised the second and fifth degrees (C-natural and F-natural) of a B Locrian mode, it would become a B natural minor scale.

Another example is if one raised the second, third, fifth, sixth, and seventh degrees (C-natural, D-natural, F-natural, G-natural, and A-natural respectively to all sharped tones) of a B Locrian mode, it would become a B major scale.



WORKBOOK

Chapter 65:
Impressionism:
Guideline for Composing an Impressionistic Composition

Guideline for Composing an Impressionistic Composition

When composing an Impressionistic composition, please include the following musical elements:

Timbre (tone color): Composers should stress tone color as preeminent. Timbre should be integrated and interwoven not only texturally, but also melodically, rhythmically, and harmonically.

Scales: Use exotic scales as a resource for melody and harmony. For example, whole-tone, pentatonic, modal or pseudo-modal, and synthetic scales, etc.

Melody: Melodies should be free, improvisatory, and irregular in length, creating a mosaic of multi-sound color. Melodies can be long and wandering, but more often narrow in range comprising of short motivic material.

Rhythm: Rhythms should be equivocal, irregular, rhapsodic, and improvisatory, non-pulse like or free, as though there were no bar-lines. Composers can achieve this freedom through many ties across the bar-line and primary beats as well as stressing syncopation, diversity of rhythmic configurations, and irregular subdivisions of the beat.

Meter: In his Impressionistic works, Debussy often employed changing meters at the onset of a composition and continued to alter meters with regularity. Although Debussy's changing meters never reached the frenzy pinnacle of Igor Stravinsky (e.g. "A History of a Soldier"), Debussy did use them as a means to create an equivocal pulse. His intentions were to blur or rid the feeling of a bar-line that organized a recurring beat [read "Rhythm"] altogether.

Form: Although some Impressionistic compositions have employed loosely a general ternary (tripartite) or A-B-A structure as its overall form and design, most Impressionistic works create a formal structure that blurs a distinct demarcation of its formal boundaries that is not easily discernible.

Tonality: Impressionistic composers, especially Debussy, still evoke tonality in their Impressionistic compositions. The great composers, Franck and Schoenberg often criticized Debussy's Impressionistic music as too simple with its clear tonal centers, despite its meandering. However, for most lay-listeners, Debussy's tonality, despite its eminent presence, was often vague and complex in its own right [read "Harmony"].

Chapter 65: Guideline for an Impressionistic Composition (continued)

Texture: The complexity and nonfunctional use of Debussy's harmonies were often absorbed by its texture. Especially in his piano works, Debussy would often blur the chordal function through incessant pedal points and unorthodox, overlapping use of the damper pedal, creating a unique misty and ambiguous atmosphere. Debussy's harmonies were employed not only for its timbral and melodic contours, but also to create a textural palette that was more atmospheric than functional. Regardless of Debussy's piano works, or small and large ensemble works, he always had his texture thin and transparent. He would use instruments, traditional and exotic, in the orchestra more as soloists interwoven among each other, creating a misty, atmospheric, light, and transparent texture.

Harmony: Although Debussy and other Impressionistic composers often used stable triads, they also made use of the unstable, dissonant triads such as the augmented and diminished chords. The augmented triad was chiefly used for its vagueness. In addition to tertian harmonies, Debussy would also include irregular chords that are built on seconds, fourths, and fifths. Primary and secondary triads also were embellished through chromatic alterations. Impressionistic triads were often augmented in size by adding sevenths and ninths, and less often elevenths and thirteenths. Triads and larger harmonies may also include non-harmonic tones without any resolution. Chords with non-harmonic tones are best applied as added color and texture. Impressionistic harmonies, including dyads, are often played in parallel motion, creating a succession or harmonic stream with no real direction or resolution. In his piano compositions, Debussy would often express harmonies by having them unfold linearly, creating an interesting kaleidoscope configuration, preeminent over its harmonic function. Often, Debussy would blur the chordal function through incessant pedal points and unorthodox, overlapping use of the damper pedal. Debussy mastered the unique color effects of using harmonies in a nonfunctional progression in his piano and orchestral works. In other words, he did not employ the tension and release of a dominant seventh chord (V7) resolving to a stable tonic (I) chord as the previous periods had done. Instead, Debussy's harmonies were employed merely for its timbral and textural qualities as well as its unique melodic contours that they produced. Therefore, Debussy's harmonies within his musical fabric were conceived primarily as sonorous entities compared to the more conventional harmonic functions of the 17^{th} and 18^{th} Centuries.

WORKBOOK

Chapter 66:
Chromaticism: An Overview

What is Chromaticism and its Effects on Tonality

As soon as the diatonic major and minor scales were introduced to the equal temperament tuning system where the octave was equally divided into twelve equal semi-tones (first adopted and completely expounded during the 16th century), the doors were opened for the incipient of a slow emancipation of tonality. As a result of the equal temperament tuning system, the chromatic scale was formed. It was the chromatic scale, which gave composers a multitude of opportunities to explore a vast galaxy of tonal regions. However, chromaticism, which was originally used to both indirectly facilitate and reinforce tonality as well as to produce a wider variety of melodic and harmonic colors, would eventually be tonality's ultimate down fall.

Composers who employed striking chromaticism with diatonic scales as its foundation during the late Renaissance and Baroque periods, to name only a few were Carlo Gesualdo (1560-1613), Claudio Monteverdi (1567-1643), Henry Purcell (about 1659-1695), Antonio Vivaldi (1678-1741), George Frideric Handel (1685-1759), and the great Johann Sebastian Bach (1685-1750). The Classical period that followed witnessed a wider use of chromaticism in the music of Wolfgang Amadeus Mozart (1756-1791), followed by the most revolutionary composer of his day, Ludwig von Beethoven (1770-1827). Mozart and Beethoven in particular both used chromaticism as an aid to travel to far-reaching keys that composers before them did not dare to venture. However, it was not until the Romantic composers' ubiquitous and incessant use of the chromatic scale melodically, and especially, harmonically within the diatonic framework that tonal music really began to lose its hierarchical grip. The chromatic explorations of Franz Schubert (1797-1828), Frederic Chopin (1810-1849), Franz Liszt (1811-1886), Johannes Brahms (1833-1897), Hugo Wolf (1860-1903), Richard Strauss (1864-1949), and culminating with the unending melodies and harmonies as well as incessant tonicization and modulation of Richard Wagner's (1813-1883) music eventually left composers no other place to venture tonally. In the Romantic period, especially in Wagner's music dramas, chromaticism took tonality to its utmost limit with no viable place to go without destroying the original essence of tonality.

The chromatic landscape that followed in the late 19th and early 20th centuries were so highly dense that it created new forms of tonality. The newly chromatic tonal music from some composers of the early 20th century still evoked a tonal center, but no longer depended on the traditional diatonic major and minor scales and chords as its primary foundation. This style is clearly seen in Arnold Schoenberg's songs for Voice and Piano from Opus 14, where he uses chromaticism and vagrant harmonies to create a total new tonal architectural design that coexists with tertian harmonies and a diatonic key signature (his last work to use a key signature). It is clear in Opus 14 that Schoenberg's chromaticism and vagrant harmonies (the equidistant quartal harmonies) in many ways undermined traditional tonality and tertian harmonic progressions. However, he demonstrated in an inconspicuous and ingenious way how chromaticism and vagrant harmonies, in context with voice leading and added contrapuntal lines, may have an implied tonal center as well as create an implied root for the equidistant harmonies.

Another example is Bela Bartok's (1881-1945) Music for Strings, Percussion, and Celesta, Movement One (1936). In this work, he stresses the note A at the very beginning of the work, but not in a traditional manner as in A minor or A major. Instead, Bartok stresses the note A through chromatic voice leading and contrapuntal movement in the string parts. He does not only stress the note A, but also moves to the middle of the work to the note E-flat for its climax before recapitulating to the note A at the end of the work.

Never during this piece does Bartok allude to A minor or its parallel major; the same is so at the climax of the work when Bartok moves to the tone, E-flat. He only stresses those notes as a central, important tonal center, but that is all. No supporting tertian harmonic progressions or diatonic major and minor scales are employed as support for these two primary tonal centers. Bartok does the same in numerous other works, especially in his short piano compositional exercises found in the Mikrokosmos series, volumes one through six. Similarly, this can be found in other composers' works of this time, notably in Alexander Scriabin's (1872-1915) Ten Piano Sonatas (1912-1913) and other works where he emphasizes a tonic without its supporting diatonic scales and tertian harmonies. The "Mystic Chord", created by Scriabin that consists of the superimposition of various types of fourths (e.g. diminished, perfect, and augmented fourths) in itself undermines traditional tonal standards. Another pioneer of chromaticism can be heard in Stravinsky's music, especially with his early ballet music as well as Les Noces and Serenade in A. For example, Stravinsky's Serenade in A for solo piano, similarly to Bartok's first movement of Music for Strings, Percussion, and Celesta, demonstrates a gravitational pull toward the note "A" without it being confined to a diatonic major or minor scale. Observe how shrewd Stravinsky's title Serenade in A did not include major or minor after the tonic note. The omission of major or minor in the work's title is an insight of its musical predisposition and its departure from traditional tonal values.

Another musical phenomenon that developed from the chromatic explorations of 20th century composers was atonality. In this music, composers established a new sound that evoked a complete absence of tonality. The foremost composer to explore chromaticism in an atonal setting was the expressionistic composer, writer, teacher, pedagogist, and painter Arnold Schoenberg (1874-1951). [As discussed in Chapter Four: Atonality]. Although Schoenberg's profound and provocative chromatic atonal music was not widely accepted, he did have a supportive following. Those performers and composers that were notably successful in the new genre were his European pupils Webern, Berg, and Wellesz. His most popular pupils from the United States were Kirchner, Kim, and Cage as well as my two music professors, Scott Merrick (College of Marin) and Henry Nixon (San Francisco State University). Schoenberg and his followers strongly believed that the emancipation of tonality as well as dissonance and tertian harmony, was the music of the future, which can only be appreciated by the most sophisticated and intellectual echelon of society.

WORKBOOK

Chapter 67:
Chromaticism:
Selected Listening and Reading Guides

Selected Listening Guide (Discography) for Chromatic Compositions

Chromatic Music with No Tonal Center

Arnold Schoenberg (1874-1951)

String Quartet No. 2 in F# with soprano, Op. 10 (most of the last movement, 1908, revised 1921).

Three Piano Pieces, Op. 11 (1909).

"Ich darf nicht dankend", Op. 14, No. 1 (first song from a collection of Songs for Voice and Piano (1907-08).

"The Book of Hanging Gardens", Op. 15 (a collection of Songs for Voice and Piano, 1908).

Five Pieces for Orchestra, Op. 16 (1909).

Six Little Piano Pieces, Op. 19 (1911).

Pierrot Lunaire, Op. 21 (1912).

Five Pieces for Piano, Op. 23 (1923).

Serenade, Op. 24 (1923).

Anton Webern (1883-1945)

Five Pieces for String Quartet, Op. 5.

Five Pieces for Orchestra, Op. 10.

A. Chromatic Music with No Tonal Center (continued)

Alban Berg (1885-1935)

Wozzeck (Opera, 1917 – 1922).

Chamber Concerto (Music for Piano, Violin, and Thirteen Winds, 1925).

Lyric Suite (for String Quartet, 1926).

Lulu (Opera, unfinished orchestration part, 1929 – 1935).

Violin Concerto (1935).

B. Chromatic Music with a Non-Traditional Tonal Center. (Music that does not conform to "traditional" diatonic major and minor scales as well as austere harmonic progressions based on tertian harmony).

Arnold Schoenberg (1874-1951)

1. String Quartet, No. 1, Op. 7.

Alban Berg (1885-1935)

1. Five Orchestral Songs on Picture-Postcard Texts of Peter Altenberg, Op. 4.

Bela Bartok (1881-1945)

Music for Strings, Percussion, and Celesta, Movement One (1936).

Piano Piece from Mikrokosmos, Book II, No. 54.

Piano Piece from Mikrokosmos, Book III, No. 92.

Piano Piece from Mikrokosmos, Book IV, No. 110.

Piano Piece from Mikrokosmos, Book V, No. 123.

Alexander Scriabin (1872-1915)

Ten Piano Sonatas (1912-1913).

Igor Stravinsky (1882–1971)

La Sacre du printemps (The Rite of Spring, 1913).

Les Noces (The Wedding, 1917-1923).

Serenade in A for Piano (1925).

Claude Debussy (1862-1918)

Prelude a l'Apres-midi d'un faune (Prelude to the Afternoon of a Faun; 1894).

C. Chromatic Music with a Diatonic Major or Minor Tonal Base

Johann Sebastian Bach (1685-1750)

Prelude from the Well Tempered Clavier, Prelude I, Book II.

The Passion According to St. Matthew, Recitative, "O Schmerz".

Wolfgang Amadeus Mozart (1756-1791)

The Magic Flute, Act I, Introduction (Opera).

Ludwig von Beethoven (1770-1827)

Quartet, Op. 18, No. 1, Scherzo.

Bagatelle, Op. 33, No. 1 (Piano Piece).

Frederick Chopin (1810-1849)

1. Prelude in E Minor, Op. 28, No. 4 (Piano Piece).
2. Prelude in B-Flat Major, Op. 28, No. 21 (Piano Piece).
3. Polonaise in A-Flat Major, Op. 53 (Piano Piece, 1842).

Johannes Brahms (1833-1897)

Symphony No. 4, Finale.

Capriccio, Op. 73, No. 3.

Chromatic Music with a Diatonic Major or Minor Tonal Base (continued)

Edvard Grieg (1843-1907)

Nocturne in C Major, Op. 54, No. 4 (Piano Piece).

Papillon, Op. 43, No. 1 (Piano Piece).

Hector Berlioz (1803-1869)

Symphonie Fantastique (A Program Symphony, 1830).

Johann Strauss (1825-1899)

Voices of Spring (Piano Waltz).

Franz Liszt (1811-1866)

Il Penseroso.

Transcendental Etude, No. 10 in f Minor (Piano Piece, 1851).

Les Preludes (Symphonic Poems, 1848-1854).

Sonetto 47 del Petrarca.

Piano Concerto, No. 2.

Anton Bruckner (1824-1896)

Adagio from Symphony No. 7.

Symphony No. 9, Third Movement.

C. Chromatic Music with a Diatonic Major or Minor Tonal Base (continued)

Richard Wagner (1813-1883)

Prelude to "Tristan und Isolde" (Opera, 1859).

"Pilgrims Chorus" from Tannhauser (Opera, 1845).

Die Meistersinger von Nurnberg (Opera, 1868).

Cesar Franck (1822-1890)

Symphony in D Minor, First Movement.

Richard Strauss (1864-1949)

Ruhe, Meine Seele (Song for Voice and Piano).

Der Rosenkavalier, Act I (Opera).

Till Eulenspiegels lustige Streiche (Symphonic Poem).

Hugo Wolf (1860-1903)

Das Verlassene Magdlein (Song for Voice and Piano).

In dem Schatten meiner Locken (Song for Voice and Piano).

Tramping (Song for Voice and Piano).

Alexander Scriabin (1872-1915)

Prelude, Op.11, No. 4.

Claude Debussy (1862-1918)

Mazurka in A Major (Piano Piece).

Arnold Schoenberg (1874-1951)

1. "Ghasel", Op. 6, No. 5 in F Major (Song for Voice and Piano).

Selected Reading Materials (Bibliography) of Chromaticism

Piston, Walter and DeVoto, Mark. Harmony, Fifth Edition.

Part One: Tonal Harmony in Common Practice

Chapter 28: Other Chromatic Chords, pp. 434 – 454.

Part Two: After Common Practice

Chapter 29: Harmonic Practice Historically Considered, pp. 457 – 465.

Chapter 30: Extensions of Common Practice, pp. 464 – 487.

Chapter 32: Extended Chromaticism, pp. 527 – 542.

Kamien, Roger. Music: An Appreciation, Seventh Edition.

Part One: Elements

Chapter 7: The Chromatic Scale, pp. 68.

Part Six: The Romantic Period

Chapter 1: Romanticism in Music (1820 – 1900), pp. 306 – 307.

Chapter 19: Richard Wagner, pp. 424.

Part Seven: The Twentieth Century

Chapter 9: Arnold Schoenbeg, pp. 485 – 486.

Sadie, Stanley and Tyrell, John, Editors. The New Grove Dictionary of Music and Musicians.

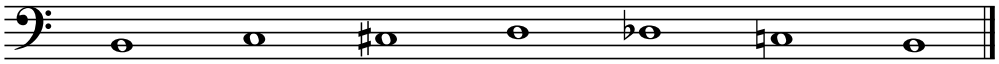
Subjects to Read: 1. Chromaticism; 2. Richard Wagner; 3. Bela Bartok; 4. Arnold Schoenberg.

Cratty, William S. Article: "The Role of Vagrant Harmonies in Selected Lieder by Wolf, Strauss, and Schoenberg". Ex Tempora (A Journal of Compositional and Theoretical Research in Music), Volume IV/2, Spring 1987.

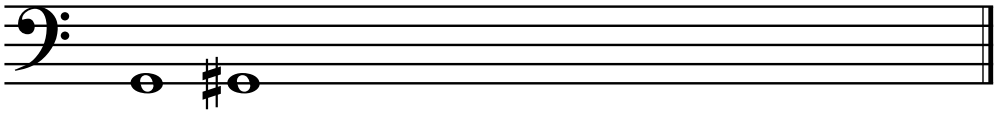
WORKBOOK

Chapter 68:
Chromaticism:
An Ascending and Descending
Chromatic Scale

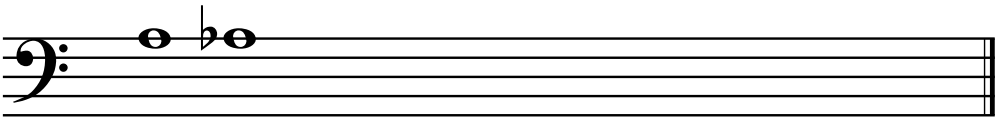
Example of a partial ascending and descending chromatic scale



Create an ascending chromatic scale (one octave)



Create a descending chromatic scale (one octave)



WORKBOOK

Chapter 69:
Chromaticism:
Guideline for Composing a Chromatic Composition

Guideline for Composing a Chromatic Composition

When composing a free chromatic composition (versus a 12-tone technique composition), please include the following musical elements:

Timbre (tone color): Composers should stress tone color as preeminent. Timbre should be integrated and interwoven not only texturally, but also melodically, rhythmically, and harmonically.

Scales: In a highly extended chromatic work, it is best to have an extensive use of the 12 tones from the ascending and descending chromatic scale. Unlike the more restrictive 12-tone technique, the composer may use the 12 tones in a flexible manner. In other words, one can repeat notes within the 12 tones of the chromatic scale as desired. A composer does not have to exhaust all 12 tones before using them again.

Melody: Melodies may or may not be lyrical. If a composer chooses to create an extended chromatic melody that is lyrical, it should not necessarily be easy to repeat. Unlike 12-tone works that include more angular and disjunct melodic contours, more conjunct motion may be employed in a highly extended chromatic work.

Rhythm: Rhythms should be equivocal, irregular, and syncopated as much as possible. The rhythms can also be straightforward and simple, as long as there are interruptions of unpredictability. Especially, if traditional tertian harmonies are implemented for contrast, create a rapid harmonic rhythmic motion to avoid stability.

Meter: The use of changing meters is best. When using changing meters, interchange with simple, compound, and asymmetrical meters.

Form: Most existing musical forms would be acceptable, especially if a composer chooses to compose with the chromatic scale within a diatonic framework.

Chapter 69: Chromaticism: Guideline for Composing a Chromatic Composition (continued)

Texture: All textures (monophony, polyphony, homophony, and heterophony) are accepted. The most popular and successful musical texture in highly extended chromatic music is a dense contrapuntal style. When a polyphonic texture is thick, it will provide an easier escape from traditional tonality.

Tonality: The composition may have an extended tonal sound where one note may be stressed as most important; however, it must avoid traditional 17th and 18th century tonality where one tone is systematically stressed with its respective diatonic major or minor chord and scale. An extended chromatic composition may be abstract and void of a traditional tonality, but can still evoke a tonal center. Composers may also choose to create a chromatic piece that is atonal, such as a composition that is similar to a 12-tone technique work, but more relaxed and free from its formulas.

Harmony: Within an extended chromatic idiom, a composer who uses any forms of tertian harmony should include rapid harmonic rhythmic motion. As in Wagner's music dramas, an overflow of secondary dominants either evading its true destination by irregular and evasive resolutions or progressing from dominant sevenths to dominant sevenths, allowing no resolution at all is best! Avoid using tertian harmonies if possible, but if they are employed, do not use them for their grammatical, functional, or contextual significance.

Cadences: Avoid clear and symmetrical, balanced cadences.

Ostinato Patterns: Ostinato patterns are acceptable as long as they do not intentionally strengthen tonal principals. For example, an Alberti bass outlining a tonic triad incessantly, or ostinato patterns and/or pedal points that emphatically reinforce the dominant and tonic notes.

PART FIVE:
MUSICAL STRUCTURES
(Return to Traditional Tonality)

WORKBOOK

Chapter 70:
Sonata-Allegro Form: An Overview

Sonata-Allegro form: An overview

The Sonata-Allegro form, also known as the Sonata form, is a musical form that allowed composers to expand their musical ideas in a cohesive, structural design. The Sonata form was a shell in which composers could flexibly maneuver their musical ideas in interesting, exciting, and innovative ways never done before. The Sonata form was a by-product of the Classical period (1750-1820) in which composers desperately sought to expand the duration of instrumental music and create a satisfying and unifying musical whole. Many musicologists credit Franz Joseph Haydn as an exponent of this magnificent form.

Prior to the Classical period; i.e., the Baroque, Renaissance, and Medieval periods, vocal music was preeminent. Only until the "late" Baroque period (approximately 1680-1750) instrumental music became tantamount to vocal music due to the development of new and expansive musical forms for instruments; one such example was the Ritornello form used in the Concerto Grosso. However, in the Classical period, for the first time in music history, instrumental music superseded vocal music in its importance and sheer volume. One contributing factor to this shift was the development of the Sonata-Allegro form.

Before discussing the Sonata-Allegro form, this term should not be mistaken for the term Sonata. During the Classical period, the term Sonata was used to describe a musical work for one or two instruments with several movements. However, prior to the Classical period, the Baroque period used the term Sonata to denote a broader definition. In the Baroque period, the term Sonata referred to instrumental works with multi-movements written for one to eight instruments. The term Sonata was also used to differentiate music without voices compared to its antithesis, a Cantata in which music was to be sung. It was for this very reason why in the Classical period composers and theorists chose to also use the term Sonata to identify a specific musical form designed to structure instrumental music, which they labeled Sonata form or Sonata-Allegro form.

Why the term Allegro was added to Sonata form was because most multi-movement works used the Sonata form for the first movement and sometimes the last movement which were often fast in tempo; hence, Sonata-Allegro form. Although its usage was prevalent in first and sometimes the last movement, the Sonata form was used in the other remaining movements as well.

Multi-movement works that employed the Sonata-Allegro form were the Symphony, String Quartet, or Sonata for a solo instrument, such as the Piano Sonata, or for two instruments, such as the Violin and Piano Sonata. However, the Sonata-Allegro form has also been employed with single movement works found in the Romantic period (1820-1900), such as the Concert Overture and Symphonic Poem (Tone Poem).

Chapter 70: Sonata-Allegro Form: An Overview
(continued)

There is debate from which earlier musical forms the Sonata form had evolved. Some musicologists would agree that it was the rounded binary, and others would believe it was the ternary (tripartite) form. Although the Sonata-Allegro form consists of three distinct parts or sections: the exposition, development, and recapitulation sections (sometimes including an introduction to precede the exposition and a coda that follows the recapitulation), does not necessarily mean that it was derived from the ternary form, with which it is often associated. In most first movement works, the Sonata-Allegro form includes an exposition section that is repeated; therefore, it is twice as long as the recapitulation section. The second half of the work consists of a development section followed by its recapitulation section, which is a modified repetition of the exposition material without repeats. Therefore, the overall outline of the Sonata-Allegro form could be illustrated as:

Exposition	(Repeat of Exp.)	‖	Development	Recapitulation	‖
A	A	‖	B	A^1	‖

As the illustration shows above, the Sonata-Allegro form is more closely associated with the more simple and shorter Rounded Binary form (A A | B A^1) than the Ternary form (A B A). However, as sometimes heard in a last movement work using the Sonata-Allegro form, the exposition sometimes is not repeated, therefore, outlining more closely with a Ternary form: A B A. Regardless of one's perspective, in a true ternary or rounded binary form, the B section, which is often associated with the development section of a Sonata form, includes new and contrasting materials. But in the Sonata-Allegro form, the development section (B section) develops and manipulates thematic materials from the A section or exposition in motivic form. Although the development section can be an extreme contrast to the exposition, the development section is more closely unified with the A section compared to the A and B sections of a ternary or rounded binary form.

An introduction may or may not precede the exposition of a Sonata form. When it does, it is usually slow and contrasting to the more quick and dramatic exposition. The slow introduction heightens the expectation to the more robust and grandiose exposition. After the optional introduction, an exposition section begins with its first theme in the tonic key. The first theme may consist of several smaller themes, creating a group of themes in the tonic key. After the first theme or possibly a group of themes at the tonic, there is a bridge or transitional section, which functions to modulate to a second theme or group of themes in a new key. The second theme is often in the dominant key, which contrasts with the first theme by being more lyrical and romantic.

Some early Sonatas include a clear demarcation between the two themes, and in others, especially later Sonatas, the bridge to the second theme is uninterrupted and less obvious. After the second theme or group of themes close with its concluding material, the development section begins. Again, as with earlier composers; e.g., Haydn, Clementi, Kuhlau, Koehler, and even Mozart, we generally hear a clear cadence and demarcation when the exposition ends and when the development section begins. However, with later Sonatas, especially with Beethoven, the demarcation between each section becomes more equivocal. Nevertheless, the development section begins with the first theme and/or second theme, or possibly with the group of themes or bridge material, in a motivic, fragmentary form. The themes are never presented in its entirety during the development section, but more like a short motive that is transformed and developed melodically, harmonically, and rhythmically. In addition to developing the theme(s) from the exposition, the function of the development section is to tonicize and/or modulate to various keys, which were not explored in the exposition. Depending on the length of the Sonata, the modulations in the development section may be close or remote as well as short or lengthy. In addition, the modulations may be few or many. The purpose of the development section is to create a state of drama and heightened tension that will require resolution, which is achieved followed by the recapitulation section.

The recapitulation section is a return to the themes from the exposition section. However, in the recapitulation, the bridge will not modulate to a new key for the second theme. Instead, the bridge will maintain its course in the original home key, which provides more stability compared to the conflict and strong contrast when the first theme modulated to the second theme in the exposition section. By remaining in the tonic key for all the themes in the recapitulation, it provides a sense of repose and stability to the climactic and heightened tension heard in the development section as well as the conflict and contrast between the two themes of the exposition.

In the short Sonatas or Sonatinas, the second theme may conclude the work. However, in most Sonata-Allegro works, they include a coda or codetta section at the end of a composition or movement. In Italian, the term coda implies "tail", while in music it refers to a musical addendum to the primary work. A coda section is a musical part that sums up the entire work and brings it to a formal close, just as an "epilogue" does for a book. If the coda section is brief, it is often referred to as a codetta. The coda or codetta often brings back materials heard from the exposition verbatim or the materials may be permutated further. Sometimes, composers such as Beethoven would create new theme(s) in the coda section. Regardless of the coda's length or from where its materials are derived, the coda will always conclude in the tonic key.

Sonata-Allegro form

A Section (A Section usually repeats without the introduction)

Introduction	**Exposition**		
(Optional)	First Theme or Group of Themes	Bridge	Second Theme or Group of Themes
	Tonic Key	Modulation	New Key (Often Dominant)

B Section

Development

The development section develops the main theme(s) in motivic form, including modulation(s) and/or tonicization(s) to neighboring or distant key(s).

A^1 Section

Recapitulation			**Coda** (Optional)
First Theme or Group of Themes	Bridge	Second Theme or Group of Themes	Closing Theme
Tonic Key	No Modulation	Remains in Tonic Key	Tonic Key

(The recapitulation is a repetition of the exposition without modulations and repeats)

WORKBOOK

Chapter 71:
Sonata-Allegro Form: Selected Listening and Reading Examples

Selected compositions including the Sonata-Allegro form

Franz Joseph Haydn (1732-1809)

Symphony No. 94, The "Surprise" Symphony, First Movement: Adagio; Vivace assai, (1791).

Sonatina in C Major, First Movement: Allegro con brio.

Wolfgang Amadeus Mozart (1756-1791)

Piano Sonata in C Major, No. 15, K. 545, First Movement: Allegro.

Piano Sonata in F Major, No. 6, K. 332, First Movement: Allegro.

Symphony No. 40 in G Minor, K. 550, First Movement: Molto Allegro and
Fourth Movement: Allegro assai, (1788).

Piano Concerto No. 23 in A Major, First Movement: Allegro, (1786).

Eine kleine Nachtmusik ("A Little Night Music"), First Movement, (1787).

Ludwig van Beethoven (1770-1827)

Symphony No. 5 in C Minor, Op. 67, First Movement: Allegro con brio, (1808).

Piano Sonata in C Minor, "Pathetique", Op. 13, First Movement: Grave; Allegro molto e con brio, (1798).

Sonata in G Major, Op. 49, No. 2, First Movement: Allegro ma non troppo.

Sonata in G Minor, Op. 49, No. 1, First Movement: Andante.

Chapter 71: Sonata-Allegro Form: Selected Listening and Reading Examples (continued)

Muzio Clementi (1752-1832)

Sonatina in C Major, Op. 36, No. 1, First Movement: Spiritoso.

Sonatina in F Major, Op. 36, No. 4, First Movement: Con Spirito.

Friedrich Kuhlau (1786-1832)

1. Sonatina in C Major, Op. 55, No. 1, First Movement: Allegro.

Recommended reading materials on the Sonata-Allegro form (bibliography)

1. Kamien, Roger. Music: An Appreciation, Seventh Edition.

Part Five: The Classical Period

Chapter 3: Sonata Form, pp. 224 – 229.

2. Stolba, K. Marie. The Development of Western Music.

Chapter 18: Eighteenth-Century Pre-Classical Music, pp. 332 – 336.

Chapter 19: The Classic Era, pp. 361 – 363.

3. Sadie, Stanley and Tyrell, John, Editors. The New Grove Dictionary of Music and Musicians.

Subject: 1. Sonata-Allegro Form.

WORKBOOK

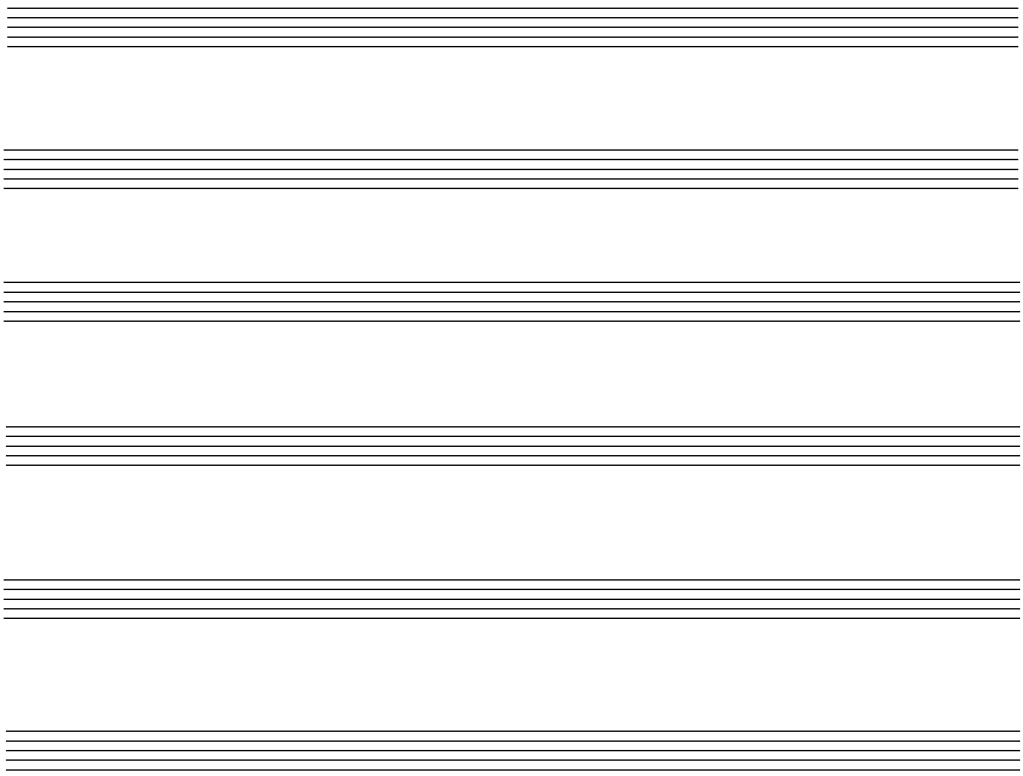
Chapter 72:
Sonata-Allegro Form: Exercises

First theme for the Sonata-Allegro form

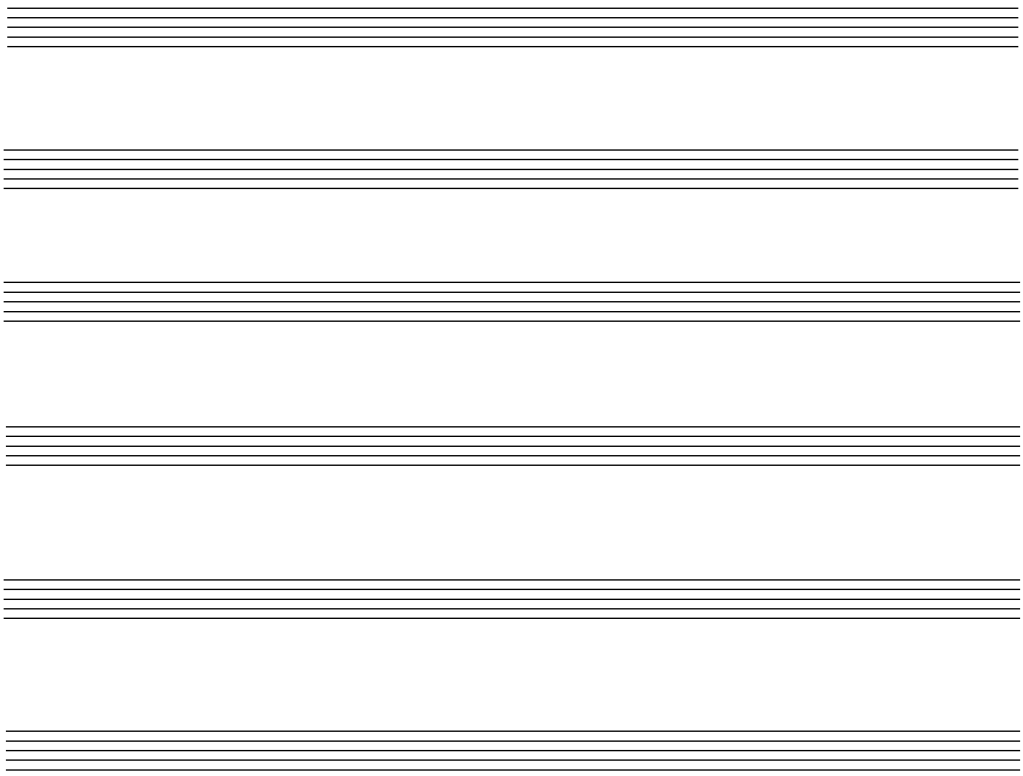
Please compose below the opening first theme for your piano sonata using the Sonata-Allegro form for review by your theory instructor. The first theme should be a minimum of eight measures in length. The grand staves below are provided if you like to add an accompaniment pattern with harmonic implications.

First Theme

First Theme (continued)



Bridge

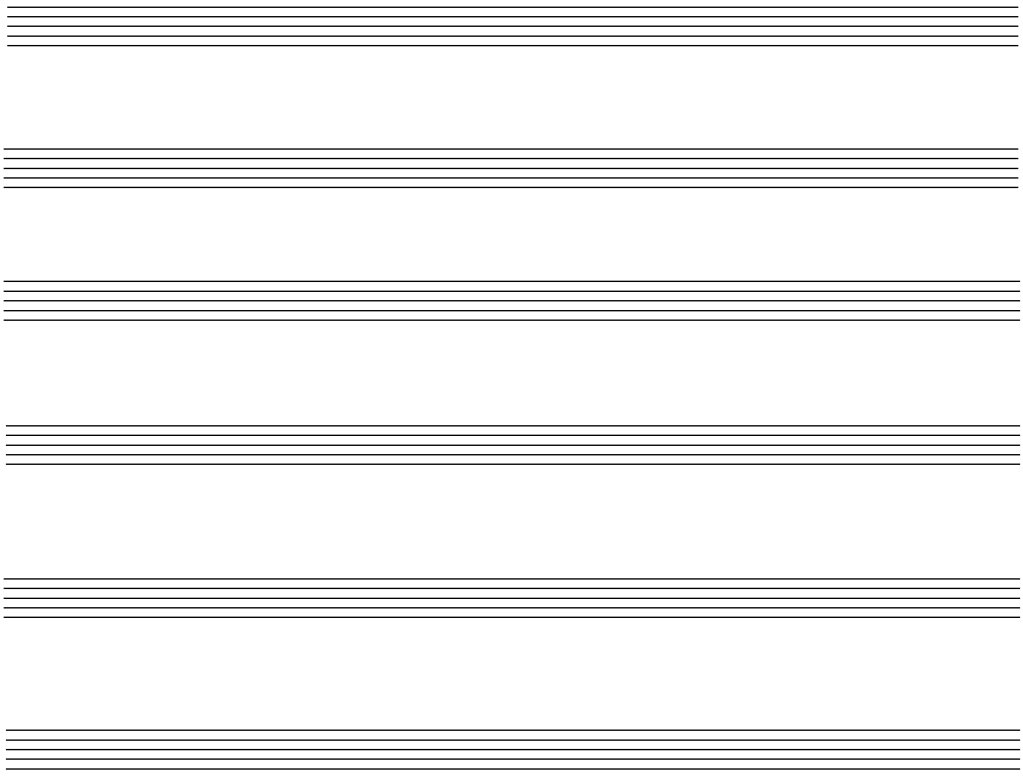


Second Theme

Second Theme (continued)

Chapter 72: Sonata-Allegro Form: Exercises (continued)

Development Section



(continued)

Development Section (continued)

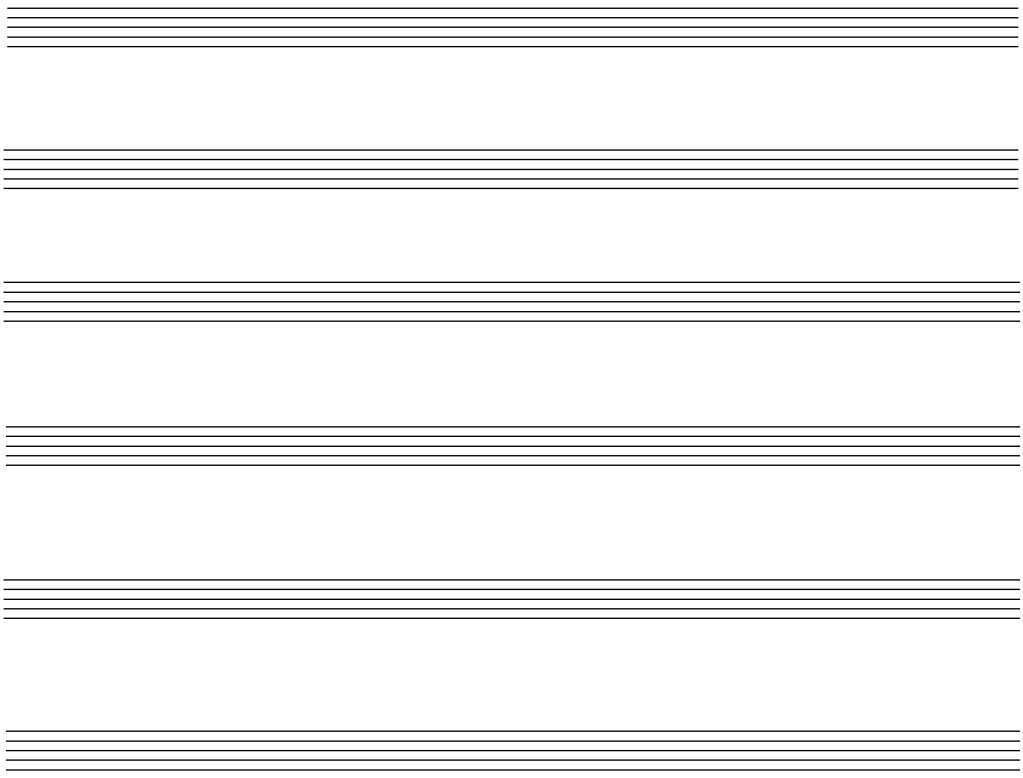
Note: After your music professor has evaluated your exposition and development sections of your Sonata-Allegro form, you may then proceed to complete your composition assignment in a "Finale File" for your final submission. If you prefer to notate by hand, the following chapter provides you blank music staff paper to write out your Sonata-Allegro form composition.

WORKBOOK

Chapter 73:
Sonata-Allegro Form: Composition

An original student composition using the Sonata-Allegro form

A few grand staves below are provided for you to get started when you begin to compose an original "piano sonata" using the Sonata-Allegro form. You will be required to provide additional music paper.



An original student composition using the Sonata-Allegro form (continued)

An original student composition using the Sonata-Allegro form (continued)

An original student composition using the Sonata-Allegro form (continued)

An original student composition using the Sonata-Allegro form (continued)

An original student composition using the Sonata-Allegro form (continued)

An original student composition using the Sonata-Allegro form (continued)

An original student composition using the Sonata-Allegro form (continued)

WORKBOOK

Chapter 74:
Minuet and Trio: An Overview

Minuet and Trio: An overview

An extremely important musical form called the Ternary form, which is represented by three primary sections (A B A), became the primary musical design of an elegant, dignified dance used by the aristocracy, called the Minuet and Trio or Minuet. The Minuet first appeared in France at the royal courts of King Louis XIV (1643-1715) approximately 1650. In the Baroque period, the Minuet was primarily in Binary form: A Section: a + a | B Section: b + b. In addition to the Binary form, Minuets would sometimes use a Rounded Binary form: A Section: a + a | B Section: b + a. However, late Baroque composers began to juxtapose two separate Minuets of similar construction and key, with a repetition of the first Minuet after the conclusion of the second Minuet. Therefore, they created a Ternary form with the first Minuet representing the A section, the second Minuet representing the B section, and finally with a repetition of the first Minuet representing a return to the A section, but without repeats. This recapitulation to the first Minuet creates the A B A form, which is known as Ternary or Tripartite form.

This new idea of playing two contrasting Minuets side by side with a repetition of the first after its second Minuet, would eventually evolve into one composition divided into three parts around 1770. The second Minuet would become known as the Trio section. The name Trio was appropriately assigned because it was originally either performed by three instruments or written with three musical lines, performed by a total of four instrumentalists: two melodic instruments and a basso continuo, which also included two instruments that shared one bass part. In the Classical period, however, composers had more flexibility with the trio section and often would write for more than three instruments or three parts. Another characteristic element of the Trio is that its key would explore other tonal areas, most often the dominant. The trio was usually lighter in texture, often containing fewer instruments or musical lines than the A section. In addition, the B section would also be softer and lighter in mood. Despite the contrast between the Minuet and its trio, there are inferences between them, usually melodically, harmonically, and/or rhythmically.

From the earliest Binary Minuets to the tripartite Minuet and Trio, both types always shared the same "triple" meter as well as a moderate tempo. In later keyboard or instrumental ensemble suites, the Minuet would become a popular addition to multi-movement works. Other works with several movements that included the Minuet and Trio (most often as the third movement) were written for a variety of mixed ensemble works or String Quartets as well as larger works such as the Classical Symphony or Concerto. Composers such as Haydn and Mozart were fond of the Minuet and Trio as a third movement, whereas Beethoven would substitute the Minuet with a work more vigorous and faster in tempo, called the Scherzo. In addition, the Minuet and Trio was written as an independent work, usually for a keyboard instrument, that was not attached to any multi-movement composition.

Chapter 74: Minuet and Trio: An Overview (continued)

Another important feature of the form and design of a Minuet and Trio is that the A and B sections would have its own smaller subdivisions, usually written in symmetrical proportion to one another. The A B A form is a macrocosm for the entire Minuet and Trio, but the smaller subdivisions serve as a musical microcosm for each section in itself. For example, both the A and B sections of the Minuet also include, on a smaller scale, their own A B A section, which also includes repetitions. In other words, the first **A section** can be broken down as (using lower case letters to distinguish the smaller subdivisions): **a** (with repeats), **b + a^1** (with repeats). In the **B section** or trio, its two melodic ideas are indicated as: **c** (with repeats), **d + c^1** (with repeats). When the **A section** returns, it is usually musically repeated verbatim, except this time without any repeats within its smaller sections. Some composers did not write out the return of the final A section after the Trio was completed. Instead, composers would use the sign "D. C. al Fine" at the end of the Trio, which would instruct the performer(s) to return to the beginning of the Minuet and play until the "Fine" sign. The "Fine" sign was usually placed at the end of the first Minuet. When returning to the A section (Minuet), performers understood that the repeat signs would be ignored.

The overall scheme for most Minuets and Trios can be illustrated as such:

Minuet	**Trio**	**Minuet**
A	**B**	**A**
a (repeated) + b + a^1 (repeated)	**c (repeated) + d + c^1 (repeated)**	**a + b + a^1**

The number of measures per section varies from one Minuet to another. However, most Minuets and Trios do have a similar proportion and symmetry between each section. Below are three examples how similar and proportionate the common pattern of bars per section may be, especially for solo and small ensemble Minuets.

Wolfgang Amadeus Mozart

Serenade "A Little Night Music", Minuet and Trio, Third Movement.

Mozart's Minuet and Trio was used as the third movement for a String Chamber Orchestra or a String Quartet with an added double bass doubling the violoncello part. Compare the symmetry to the Minuet's A section, which includes eight bars (with repeats), followed by the second eight bars (with repeats). However, in the B section, the Trio, its opening eight bars (with repeats) is followed by 12 bars (with repeats). This is often axiomatic of chamber ensemble or symphonic works being longer in duration than solo works; therefore, musical forms for larger works were often extended.

A Section (Minuet)

a	||	**b**	+	**a^1**
8 measures (Repeat First 8 Bars of a)	||	4 measures (Repeat Last 8 Bars of b and a^1)	+	4 measures

B Section (Trio)

c	||	**d**	+	**c^1**
8 measures (Repeat First 8 Bars of c)	||	4 measures (Repeat Last 12 Bars of d and c)	+	8 measures

A Section (Minuet)

a	||	**b**	+	**a^1**
8 measures (No Repeats)	||	4 measures (No Repeats)	+	4 measures

Ludwig van Beethoven

Minuet in G (for Piano)

Beethoven's Minuet in G for piano varies slightly from the Mozart Minuet for String Chamber Orchestra. When Beethoven returns to the c section in the Trio, it is melodically varied; therefore, it is labeled as c^1. The c^1 section in Beethoven's Minuet in G is also only four bars in length compared to the eight bars in Mozart's Minuet above. This is often axiomatic of simpler and shorter solo works to have more abbreviated and symmetrical sections compared to chamber ensemble or symphonic works which generally included musical forms that were often extended.

A Section (Minuet)

a	||	**b**	+	**a^1**
8 measures (Repeat First 8 Bars of a)	||	4 measures (Repeat Last 8 Bars of b and a^1)	+	4 measures

B Section (Trio)

c	||	**d**	+	**c^1**
8 measures (Repeat First 8 Bars of c)	||	4 measures (Repeat Last 8 Bars of d and c^1)	+	4 measures

A Section (Minuet)

a	||	**b**	+	**a^1**
8 measures (No Repeats)	||	4 measures (No Repeats)	+	4 measures

Franz Joseph Haydn

Minuet Giocoso (for Piano)

In Haydn's Minuet Giocoso for piano, the A section (the Minuet) differs slightly from the norm by including an eight measure b section and an eight bar a^1 section in comparison to a four bar phrase for each section. The other alteration of this common Minuet form is that Haydn does not repeat the b and a^1 sections, possibly due to its length already including eight measures for each section. Haydn's A section alone outlines a Rounded Binary form, which is typically used in Minuets.

Haydn's Trio is also slightly disparate in its overall design in proportion to other Minuets. The first c section is as usual, eight bars with repeats. However, the d section is 12 measures in length rather than the common four bars, or sometimes eight bars. Also, the return of the c section is unaltered and repeats verbatim as well as being twice as long as the common four bar c section.

Although you may find many Minuets and Trios following one symmetrical pattern with a specific length for each section, as we see in these three examples, composers also took the liberty to vary within the framework of this popular musical genre.

A Section (Minuet)

a	+	**a**	||	**b**	+	**a^1**
8 measures	+	8 measures	||	8 measures	+	8 measures

(Repeat the Entire 32 Bars of Minuet, A section)

B Section (Trio)

c	||	**d**	+	**c**
8 measures	||	12 measures	+	8 measures
(Repeat First 8 Bars of c)		(No Repeats of Last 20 Bars of d and c)		

A Section (Minuet)

a	+	**a**	||	**b**	+	**a^1**
8 measures	+	8 measures	||	8 measures	+	8 measures

WORKBOOK

Chapter 75:
Minuet and Trio: Selected Listening and Reading Examples

Selected compositions including the Minuet and Trio

Franz Joseph Haydn (1732-1809)

1. Symphony No. 94 (The "Surprise" Symphony), Third Movement, Minuet and Trio, (1791).
2. Minuetto Giocoso in C Major for Piano.

Wolfgang Amadeus Mozart (1756-1791)

1. Eine kleine Nachtmusik ("A Little Night Music"), "Serenade", Third Movement, (1787).
2. Symphony No. 40 in G Minor, K. 550, Third Movement: Menuetto (Allegretto), (1788).

Ludwig van Beethoven (1770-1827)

Minuet in G for Piano.

Minuet in E Flat for Piano.

Minuet and Trio in F Major for Piano, (Attributed to Beethoven).

Recommended reading materials on the Minuet and Trio (bibliography)

Kamien, Roger. Music: An Appreciation, Seventh Edition.

Part Five: The Classical Period

Chapter 5: Minuet and Trio, pp. 232 – 234.

Stolba, K. Marie. The Development of Western Music.

Chapter 19: The Classic Era, p. 374.

Sadie, Stanley and Tyrell, John, Editors. The New Grove Dictionary of Music and Musicians.

Subject: Minuet and Trio.

WORKBOOK

Chapter 76:
Minuet and Trio: Exercise

Minuet and Trio's first theme

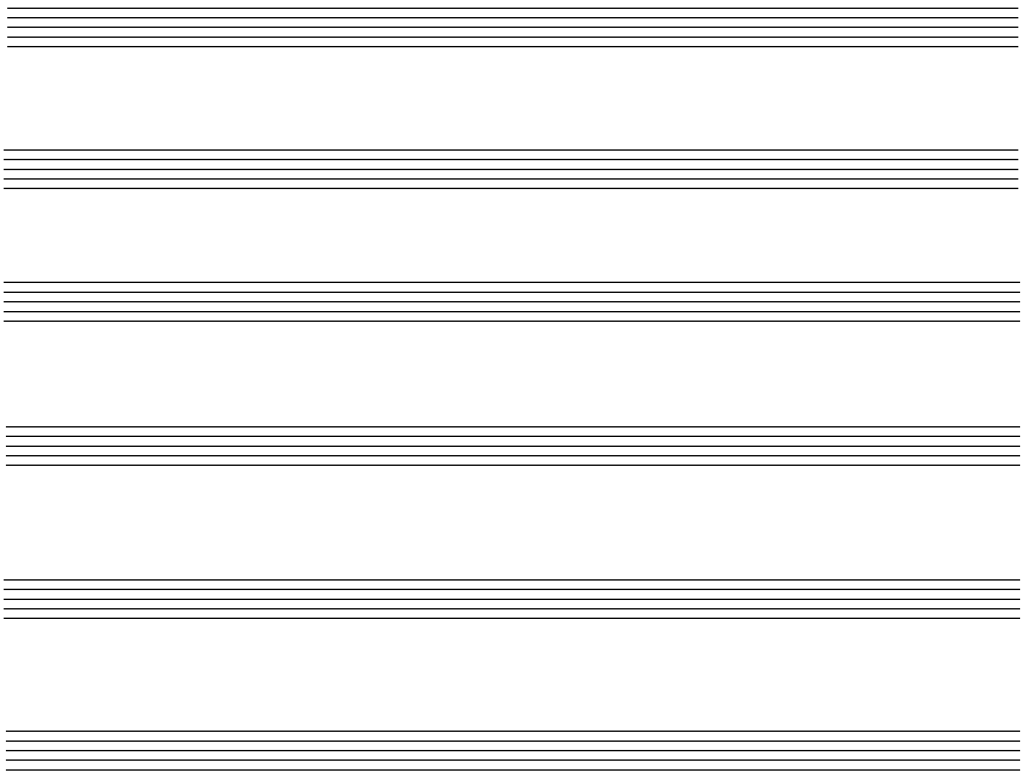
Please compose below the opening theme to your Minuet and Trio for review by your theory instructor. The first theme should be eight measures in length, which in most Minuets includes a repeat sign at the end of the melody. The grand staves below are provided if you like to add an accompaniment pattern with harmonic implications.

Minuet's first theme

Chapter 76: Minuet and Trio: Exercise (continued)

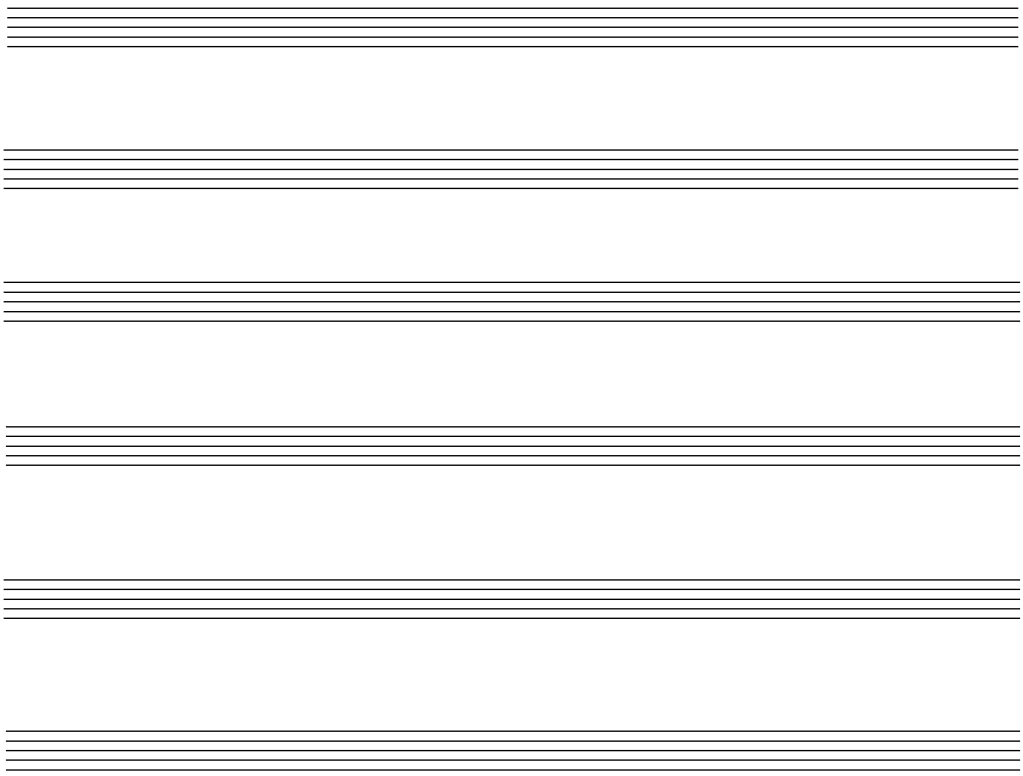
Minuet's first theme (continued)

Trio's first theme (in new key)



Chapter 76: Minuet and Trio: Exercise (continued)

Trio's first theme (continued)



WORKBOOK

Chapter 77:
Minuet and Trio: Composition

An original student composition in the form of a Minuet and Trio

A few grand staves below are provided for you to get started when you begin to compose an original Minuet and Trio composition for piano. You will be required to provide any additional music paper.

Minuet and Trio (continued)

Minuet and Trio (continued)

Minuet and Trio (continued)

WORKBOOK

Chapter 78:
Theme and Variations: An Overview

Theme and Variations: An overview

The Theme and Variations form was created possibly during the Renaissance period. The exact date is unknown. The form became extremely popular during the Classical period when contrast and variety was vogue in our musical culture of Western Europe. It was an ideal form for composers to express their ingenuity and talents to take an original or borrowed theme and vary it in contrasting ways that sounded independent, but still retained the integrity of its original concept.

The Theme and Variations form can be employed as an independent work or as one movement of a sonata for one or two instruments, a chamber ensemble piece such as a string quartet, or even a large work such as a symphony or concerto. There is no restriction on which movement a Theme and Variations form can be incorporated. For example, Mozart's Piano Sonata in A Major, No. 12, K. 331, employs the Theme and Variations form as the first movement. Brahms' Symphony No. 4 in E Minor uses it in the last (fourth) movement, while Haydn's Symphony No. 94 in G Major uses it in the second movement. On the other hand, Beethoven's Diabelli Variations for piano employs the Theme and Variations form as an independent work.

Although there are some themes with only one or two variations in the repertoire, this is very rare. The minimum number of variations is usually three. The standard before Beethoven, however, was to write five or six variations. Of course, Beethoven who pushed the envelope in every musical way composed for piano 33 variations on a Waltz theme by Anton Diabelli (1781-1858) entitled "The Diabelli Variations", Op. 120 (1819). Brahms who revered Beethoven would follow with a theme and 30 variations as well as an extended coda in the fourth movement of his Symphony No. 4 in E Minor, Op. 98 (1885). Although Brahms had the creative gift to compose as many or more variations than Beethoven, it is possible to surmise that Brahms deliberately wrote less than his idol out of admiration and respect.

Although most themes are original, it was not uncommon to borrow a theme from another composer as a source of inspiration. For example, Beethoven's Diabelli Variations was derived from Diabelli's Waltz, while one of Mozart's themes was borrowed from a popular French Song, which its title and words have been changed in the United States as "Twinkle, Twinkle, Litter Star". Another example is Brahms' Symphony No. 4 in E Minor for which he used Bach's Canata No. 150 "Unto Thee, O Lord, I Lift Up my Soul", in which he took the liberty to add one chromatic note in Bach's melody which altered the harmonic scheme slightly. Although there are many great composers who employed the Theme and Variations form, both Beethoven and Brahms are undisputedly the greatest masters of this form. Since these two great composers, the standards set by Beethoven and Brahms for the number of variations and complex permutations of the theme have challenged all composers who have followed.

Chapter 78: Theme and Variations: An Overview (continued)

The theme often chosen for the Theme and Variations form is usually austere and catchy. Even during the Classical period, the themes often had a popular character. Most themes comprised of two similar but contrasting components, the most important one repeated a couple times. For example, the main theme is represented with a capital letter: A. But its underpinning subdivision is usually made up of two smaller ideas in this order: a (4 bars) a^1 (4 bars) || b (4 bars) a^1 (4 bars). Although there are other subdivided forms and lengths, such as the ternary form, the rounded binary formula for the main theme is most common.

The primary theme is analyzed and labeled as: A—Theme; it is followed by a number of variations, which are commonly labeled with a prime marking, such as: A^1—Variation One, A^2—Variation Two, A^3—Variation Three, etc. Sometimes it can also be labeled as: Variation 1—A^1, Variation 2—A^2, Variation 3—A^3, and so on. As mentioned above, the standard is five or six variations, each one becoming more complex and varied from the primary theme. Usually, when there are three or more variations, one of the variations will be written in a different key. It was common, in a major key, to choose the parallel minor as the contrasting key. The most important objective is to create a variation, which evokes its own character and identity that never abandons its original underlying theme regardless how busy and complex the transformation may become. The primary theme may usually appear in the upper voice, but a variation may incorporate the theme in any voice: the bass, tenor, or alto. The theme may be accompanied by a new theme serving as a counter-theme creating a web of counterpoint. Most often, however, the theme is varied melodically and rhythmically with each variation becoming more active as the melodic contents become more embellished and the rhythmic design more complex and diverse. Composers can also transform and vary the harmony, dynamics, articulations, accompaniment pattern, and timbral sonorities with each consecutive variation. The more abstract elements in music, such as the mood and atmosphere of a primary theme may also be subjected to variations. For example, the main theme may initially be sweet, gentle, and calm, but its variation may be transformed into something more emotionally dramatic, tumultuous, and harsh. Therefore, the overall character, mood, and atmosphere of the primary theme may also be transformed.

The primary theme from one Theme and Variations form to another may vary in length, and the variations themselves may vary in length as well. But usually the length of a variation is the same or very close in size to the main theme. However, as each variation includes more activity rhythmically, later variations may have no other choice but to augment in length. Regardless of how transformed a theme may become in length and content, the underpinning theme is always present, but not necessarily always recognizable by the ear.

WORKBOOK

Chapter 79:
Theme and Variations: Selected Listening and Reading Examples

Selected compositions including the Theme and Variations

Johann Sebastian Bach (1685-1750)

1. Goldberg Variations from the Clavier-Ubung, Part Four, (Thirty Variations, 1742).

George Frideric Handel (1685-1759)

1. Air and Variations, "The Harmonious Blacksmith" from Suite No. 5, (Five Variations, 1720).

Franz Joseph Haydn (1732-1809)

Symphony No. 94 in G Major (The "Surprise" Symphony), Second Movement: Andante, (Four Variations, 1791).

Wolfgang Amadeus Mozart (1756-1791)

1. Piano Sonata in A Major, No. 12, K. 331, First Movement, (Six Variations).
2. Andante with Variations for Piano Four-Hands.
3. Fifteen Sets of Variations for Piano.

Ludwig van Beethoven (1770-1827)

1. Thirty-Three Variations on a Waltz, "The Diabelli Variations", (Theme by Anton Diabelli), Op. 120, (1819).
2. Symphony No. 3, Finale.
3. Symphony No. 5 in C Minor, Second Movement.
4. Symphony No. 9 in D Major, Finale.
5. String Quartet, Op. 131, Fourth Movement.
6. Sonatas, Op. 109 and Op. 111.

Chapter 79: Theme and Variations: Selected Listening and Reading Examples (continued)

Johannes Brahms (1833-1897)

Symphony No. 4 in E Minor, Op. 98, (Thirty Variations and an extended coda, 1885).

Recommended reading materials on the Theme and Variations (bibliography)

1. Kamien, Roger. Music: An Appreciation, Seventh Edition.

Part Five: The Classical Period

Chapter 4: Theme and Variations, pp. 229 – 232.

2. Stolba, K. Marie. The Development of Western Music.

Chapter 20: From Classicism to Romanticism, p. 411.

3. Sadie, Stanley and Tyrell, John, Editors. The New Grove Dictionary of Music and Musicians.

Subject: 1. Theme and Variations.

WORKBOOK

Chapter 80:
Theme and Variations: Exercises

Main Theme for the Theme and Variation form

Please compose below the opening theme to your Theme and Variation for review by your theory instructor. Although your opening theme should be a minimum of 16 bars, please create below only the first eight measures of your theme for review.

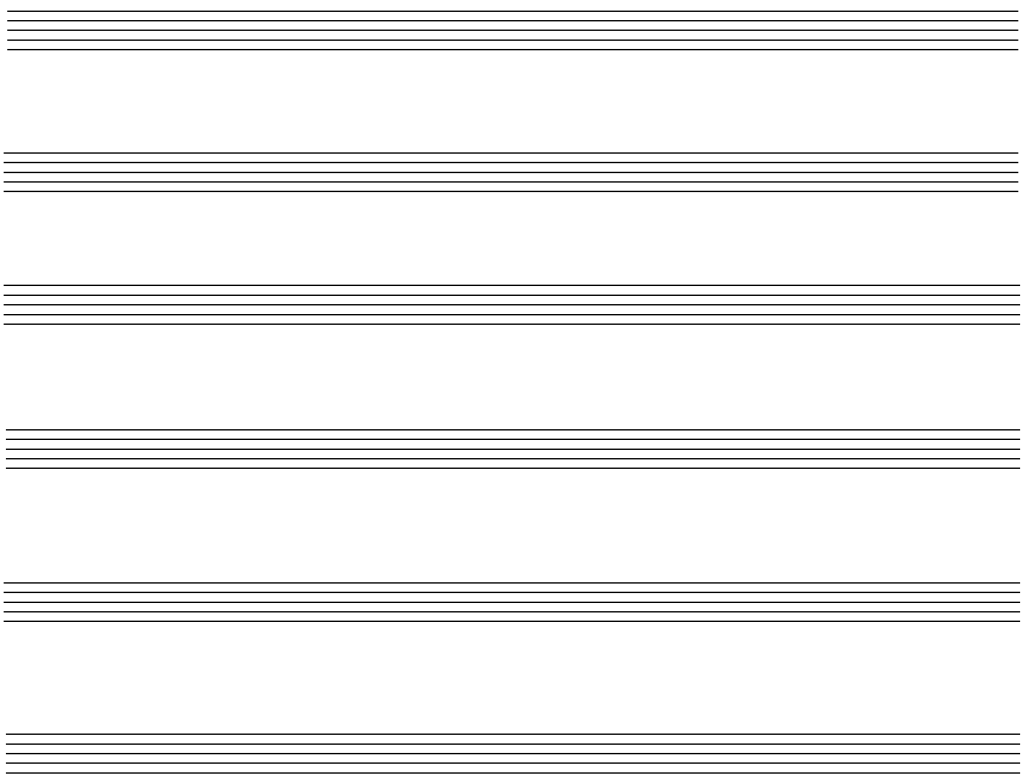
The grand staves below are provided if you like to add an accompaniment pattern with harmonic implications.

Theme
(Opening eight measures only)

First Variation
(First eight measures only)

Please compose your first "variation" based on the first eight measures of your opening theme to be reviewed by your instructor.

The grand staves below are provided if you like to add an accompaniment pattern with harmonic implications.



Second Variation
(First eight measures only)

Third Variation

(First eight measures only)

Fourth Variation
(First eight measures only)

Fifth Variation

(First eight measures only)

WORKBOOK

Chapter 81:
Theme and Variations: Composition

An original student composition in the form of a Theme and Variations

Your theme should be a minimum of 16 bars and include a minimum of five variations. Please label the "Theme" and each consecutive "Variation".

A few grand staves below are provided for you to get started when you begin to compose an original Theme and Variations composition for piano. You will be required to provide any additional music paper.

Theme and Variations Composition

Chapter 81: Theme and Variations: Composition (continued)

Theme and Variations (continued)

Theme and Variations (continued)

Chapter 81: Theme and Variations: Composition (continued)

Theme and Variations (continued)

Theme and Variations (continued)

Theme and Variations (continued)

WORKBOOK

Chapter 82:
An Original Student Composition: An Overview

An original student composition: An overview

Now you may have fun and complete control over your own creative ideas. This will be your final creative project for Advanced Theory II.

Although Music Professors in Composition would like to see our students compose an original composition that will evoke your "OWN VOICE" (your own original style or an interesting synthetic blend of styles), we believe this project should be "open" to whatever style of music that moves you.

However, before you compose your ORIGINAL COMPOSITION, please follow the four-step process below:

Step one: Written paper

Write a one or two page description of your original composition. Your paper should include details on the tempo, meter, key (if any), timbre, any musical techniques (e.g. 12-tone row), musical form, etc.

Please submit online your written paper describing your original composition to your Music Professor before you proceed with Step Two.

Step two: Compose primary theme

Compose your primary theme (minimum of eight measures) for your original composition. If you are writing a traditional, tonal composition, please have your theme clearly outline an antecedent and consequent phrase structure. If you choose to do a modern composition using the 12-tone technique, please submit a 12-tone row in its original, retrograde, inversion, and retrograde-inversion form. Regardless of the style and method you choose to compose your original work, your instructor would like to see the incipient of your project before proceeding with the entire work.

Please submit online your primary theme for evaluation with your instructor before proceeding to step three.

Step three: Permutations/transformations of original theme

After you have completed your primary theme and showed your instructor for review, please permutate and transform your theme a minimum of TEN or more times.

Most composers work out their creative ideas several times before deciding which version is going to remain. Beethoven is a great example of working out his first theme through many transformations before making his final choice. As indicated in Beethoven's composition workbooks, he would often choose a varied, worked-out version of his main theme rather than his original idea. Beethoven's work ethics in composition has set a high standard as well as a new precedence in composition at academic institutions.

While I was working on my second symphonic work, my professor required me to compose one hundred varied, transformed examples of my primary theme. I would comment that I liked my first idea very much, and he would reply that I would not know that my first idea is the best until I have experimented with other creative solutions. Also, as I created other permutations of my primary theme, I discovered secondary themes that could be used later in the work or as counter-melodies in counterpoint with my first theme.

If composers work out their first, original theme many times and discover that their first example was the best after all, their efforts are not in vain. As my professor would say, "You are now absolutely certain through your variations/transformations that your first effort is the best!"

Step four: Original work

Please proceed with your ORIGINAL COMPOSITION (a minimum of 32 to 64 measures).

By this point, you are equipped with several creative themes to choose as your primary theme and possibly as your secondary themes or counter-melodies as counterpoint for your ORIGINAL composition.

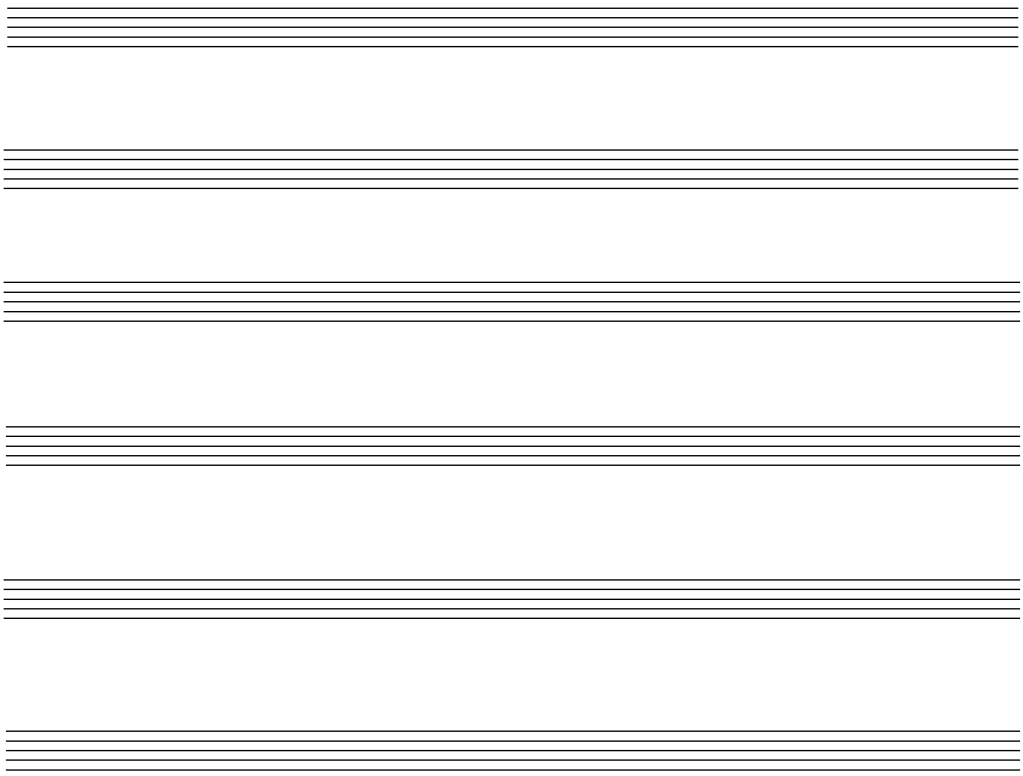
WORKBOOK

Chapter 83
An Original Student Composition: Exercises

First theme

The single staves provided below are for you to create your first theme for your original project. Your theme should be approximately 8 to 16 measures. You do not have to include any harmony, only the melody at this point.

First theme (continued)



First permutation of first theme

Second permutation of first theme

Third permutation of first theme

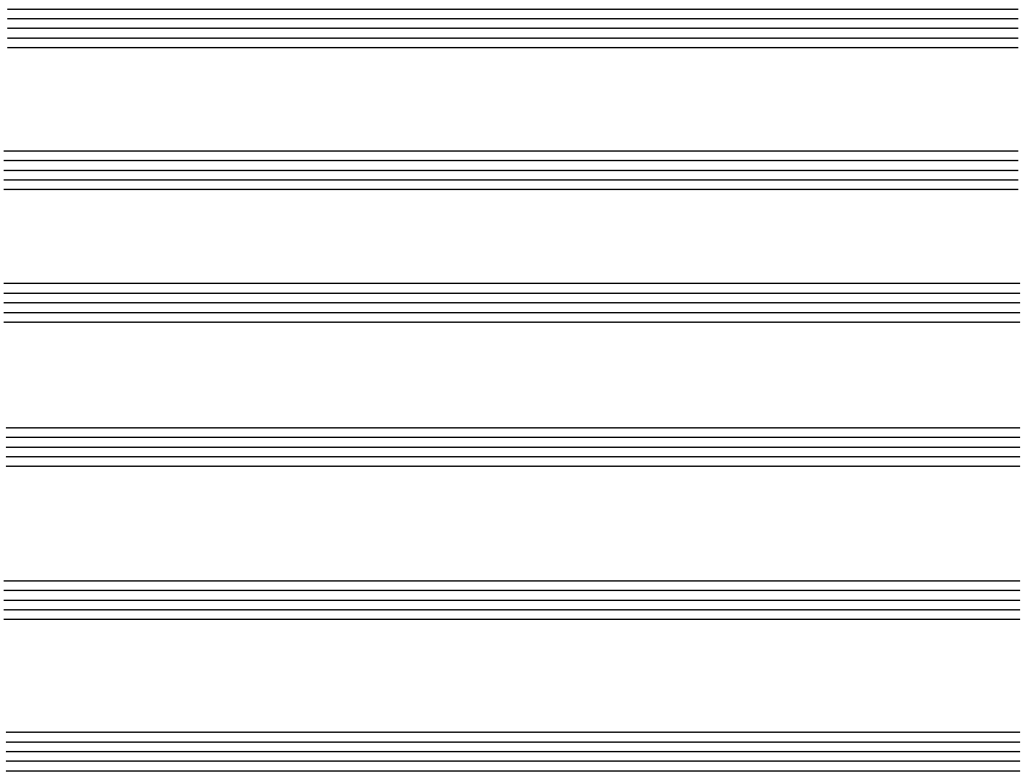
Fourth permutation of first theme

Fifth permutation of first theme

Sixth permutation of first theme

Seventh permutation of first theme

Eighth permutation of first theme



Ninth permutation of first theme

Tenth permutation of first theme

Second theme

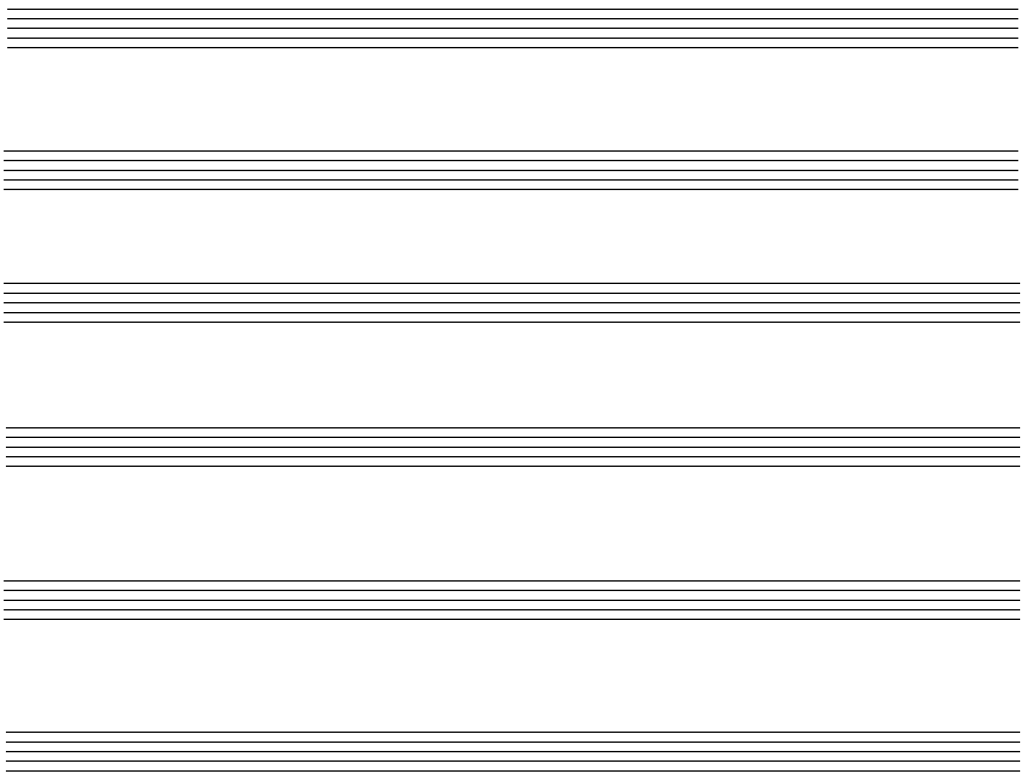
Do again as you did above and compose a second theme that would be contrasting and complimentary to the first theme. After writing the second theme, please vary and transform it several times.

Second theme (continued)

First permutation of second theme

Second permutation of second theme

Third permutation of second theme



Fourth permutation of second theme

Fifth permutation of second theme

WORKBOOK

Chapter 84:
An Original Student Composition

An original composition

Your original work should be a minimum of 32 measures.

An original composition (continued)

An original composition **(continued)**

PART SIX:
REPORT GUIDES

WORKBOOK

Chapter 85:
Concert Report Guide
(Also Online)

Name:

Class:

Date:

1. **Date of concert:**

2. **Name of concert attended:**

3. **Place of concert:**

4. Type of concert:

5. Why did you choose this concert? Also add what you liked or disliked about this concert and its environment:

6. **List as many titles you can remember at the performance (if you have a program, please add it to your paper):**

7. **Choose one composition that you enjoyed the best and explain why (please add the title, composer, instruments/timbre, form, tempo, and anything else that may have added to your musical experience):**

WORKBOOK

Chapter 86:
Theorist Report Guide
(Also Online)

Name:

Class:

Date:

Music theorist report

Please write a paragraph on each of the music composers/theorists below. Identify for each composer/theorist their theoretical and pedagogic contributions to music.

Medieval period (Middle or Dark Ages) 450 – 1450

Pope Gregory I (6th – 7th centuries)

Perotin, (Perotinus magnus) (1160-1220)

Vitry, Philippe de (1291-1361)

Landini, Francesco (1335 ?-1397)

Renaissance period 1450 – 1600

Zarlino, Gioseffo (1517-1590)

Praetorius, Michael (1571-1621)

Baroque period 1600 – 1750

Purcell, Henry (1659-1695)

Fux, Johann Joseph (1660-1741)

Kuhnau, Johann (1660-1722)

Rameau, Jean-Philippe (1683-1764)

Classical period 1750 – 1820

Clementi, Muzio (1752-1832)

Turk, Daniel Gottlob (1750-1813)

Weber, (Jacob) Gottfried (1779-1839)

Romantic period 1820 – 1900

Czerny, Carl (1791-1857)

Berlioz, Hector (1803-1869)

Richter, Ernst (1808-1879)

Koehler, (Christian) Louis (Heinrich) (1820-1886)

Hanon, Charles-Louis (1820-1900)

Rimsky-Korsakov, Nikolai Andreievich (1844-1908)

Twentieth Century (Modern) 1900 to present

Busoni, Ferruccio (1866-1924)

Schenker, Heinrich (1868-1935)

Schoenberg, Arnold (1874-1951)

Bartok, Bela (1881-1945)

Kodaly, Zoltan (1882-1967)

Piston, Walter (1894-1976)

Slonimsky, Nicolas (1894 - ?)

Partch, Harry (1901-1974)

APPENDICES:
DIATONIC HARMONY
(Triads and Seventh Chords)

WORKBOOK

Appendix A:
Intervallic Structure and Symbols for Analysis of Triads in a Major Key

Recommended reading materials of triads (bibliography)

Piston, Walter and DeVoto, Mark. Harmony, Fifth Edition.

Part One: Tonal Harmony in Common Practice

Chapter 2: Triads, pp. 13 – 21.

Instructions

Students online will be assigned to complete a harmonic analysis of several Bach Chorales.

Please analyze the entire Bach Chorale that is present online (which would be either an entire Bach Chorale or one or two phrases of one).

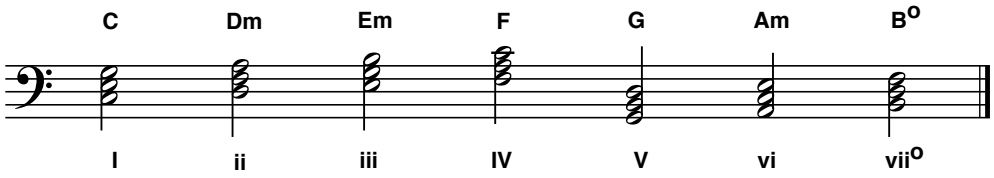
You may also listen and review the Bach Chorale in the CLASSROOM or by clicking the hyperlink available to you in the Assignment section.

Each student will be required to identify the key and non-harmonic tones in addition to analyzing the harmonic structure by including traditional Roman numerals (below the Grand Staff) and contemporary letter names (above the Grand Staff) to identify each chord and its degree of the scale. Please also use Arabic numerals for any inverted chords.

Appendix A: Intervallic Structure and Symbols for Analysis of Triads in a Major Key (continued)

Below are examples of what your instructor will expect with regards to a harmonic analysis:

Symbols for root position triads in C major



Nomenclature for triads in a major scale

I	=	Tonic
ii	=	Supertonic
iii	=	Mediant
IV	=	Subdominant
V	=	Dominant
vi	=	Submediant
vii^{o}	=	Leading-Tone

Note: With the seven triads above, the I, IV, and V are referred to as the primary triads. The remaining triads are called secondary chords.

The intervallic structure of triads

Triads, which include three notes played simultaneously, or chords, which include three or more notes played simultaneously, are like "words". They each have a particular sound or color as well as a hierarchical relationship with one another. Each chord has a meaning, and more importantly in tonal music, they have a function, just as words do in a sentence. For example, the word "the" is a definite article which precedes a noun (the subject of a sentence) or another example is the word "is", which functions as a pure verb which comes between the subject and object of a sentence. When a musician comes to fully understand the language and function of chords which are presented either harmonically or melodically, he/she comes to appreciate and hear music on another level of understanding as well as having an advantage in memorizing and learning music more quickly.

Appendix A: Intervallic Structure and Symbols for Analysis of Triads in a Major Key (continued)

Unlike the thousands of words available to us in our English dictionary, we have only four types of musical words, which we call triads in tertian harmony. Triads are constructed as major, minor, diminished, or augmented. As indicated above, in the root position triads, the triads built on I, IV, and V (the primary triads) are all major. The secondary triads, ii, iii, and vi are minor, while vii^{o} is a diminished triad. The intervallic structure of a **major triad** (in closed and root position, all notes are spelled on lines or spaces on the staff) consists of a major third between its root and third and a minor third between its third and fifth [see example below]. Another very important aspect of all major triads is the perfect fifth between its root and fifth; i.e., the lowest pitch and highest pitch of a closed, root position major triad. The perfect fifth creates stability for the major triad.

Example: The intervallic structure of a C major triad:

G (fifth)

Minor third: [

E (third)

Major third: [

C (root)

In a C major triad, the interval between its root, C natural, and its fifth, G natural, is a perfect fifth:

G (fifth)

Perfect fifth: [

C (root)

Appendix A: Intervallic Structure and Symbols for Analysis of Triads in a Major Key (continued)

The intervallic structure of a **minor triad** (in closed and root position, all notes are spelled on lines or spaces on the staff) consists of a minor third between its root and third and a major third between its third and fifth [see example below]. As compared with the anatomy of the major triad above, it also includes two disparate thirds, but they are inversed. A minor triad also shares with a major triad a perfect fifth between its root and fifth. The perfect fifth in a minor triad, as in a major triad, provides it stability. Hence, major and minor triads are often used as "home-like" chords to end a musical phrase, section, or composition due to the stability of their perfect fifth.

Example: The intervallic structure of a C minor triad:

G (fifth)

Major third: [

Eb (third)

Minor third: [

C (root)

In a C minor triad, the interval between its root, C natural, and its fifth, G natural, is a perfect fifth:

G (fifth)

Perfect fifth: [

C (root)

Appendix A: Intervallic Structure and Symbols for Analysis of Triads in a Major Key (continued)

The intervallic structure of a **diminished triad** (in closed and root position, all notes are spelled on lines or spaces on the staff) consists of a minor third between its root and third and also a minor third between its third and fifth [see example below]. As compared with the anatomy of the minor triad above, it shares a minor third between its root and third; therefore, during analysis, both triads are indicated by a lower case Roman numeral.

Unlike the major and minor triads, it includes a diminished fifth between its root and fifth due to its symmetry of two superimposed minor thirds. The diminished fifth in all diminished triads creates instability; therefore, it is referred to as a dissonant and unstable harmony, which requires resolution to a more stable, home-like chord, such as a major or minor triad.

Example: The intervallic structure of a C diminished triad:

Gb (fifth)

Minor third: [

Eb (third)

Minor third: [

C (root)

In a C diminished triad, the interval between its root, C natural, and its fifth, G flat, is a diminished fifth:

Gb (fifth)

Diminished fifth: [

C (root)

Appendix A: Intervallic Structure and Symbols for Analysis of Triads in a Major Key (continued)

The intervallic structure of an **augmented triad** (in closed and root position, all notes are spelled on lines or spaces on the staff) consists of a major third between its root and third and also a major third between its third and fifth [see example below]. Similar to the anatomy of the diminished triad above, it also includes two symmetrical thirds; however, instead of minor thirds, they are major thirds. In other words, all augmented triads include two symmetrically superimposed major thirds whereas a diminished triad includes two symmetrically superimposed minor thirds. However, as compared with the anatomy of a major triad (as discussed above), it shares a major third between its root and third; therefore, during analysis, both triads are indicated by an upper case Roman numeral.

Unlike the major and minor triads, the augmented triad includes an augmented fifth between its root and fifth because of its symmetry of two superimposed major thirds. The augmented fifth in all augmented triads creates instability; therefore, it is referred to as a dissonant and unstable harmony (as it is with the diminished triad), which requires resolution to a more stable, home-like chord, such as a major or minor triad.

Example: The intervallic structure of a C augmented triad:

G# (fifth)
Major third: [
E (third)
Major third: [
C (root)

In a C augmented triad, the interval between its root, C natural, and its fifth, G sharp, is an augmented fifth:

G# (fifth)
Augmented fifth: [
C (root)

When comparing the four triads above based on the same root, C natural, there is only one note change from one chord to another. For example, an augmented triad can be simply produced by raising (sharping) the fifth of any major triad. As indicated above, with the C major triad, which consists of C-E-G, one only needs to sharpen the G, its fifth, to produce a C augmented triad.

On the other hand, if you flatten the third of a major triad, it will result in a minor triad. In the example above, with the C major triad and its major third, E natural, is simply lowered by flattening its third to E flat to create a C minor triad.

To create a diminished triad, lowering or flattening the fifth of any minor triad will produce the diminished harmony. As discussed earlier, the C minor triad (C-Eb-G) was transformed to a diminished triad by lowering its fifth to G flat, which in turn formed a diminished harmony (C-Eb-Gb).

WORKBOOK

Appendix B:
Symbols for Root and Inverted Triads in Selected Major Keys

Recommended reading materials of inverted triads (bibliography)

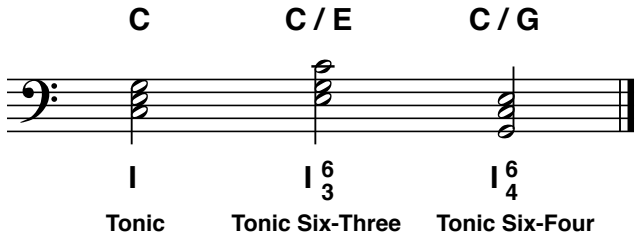
Piston, Walter and DeVoto, Mark. Harmony, Fifth Edition.

Part One: Tonal Harmony in Common Practice

Chapter 6: The First Inversion—The Figured Bass, pp. 71 – 89.

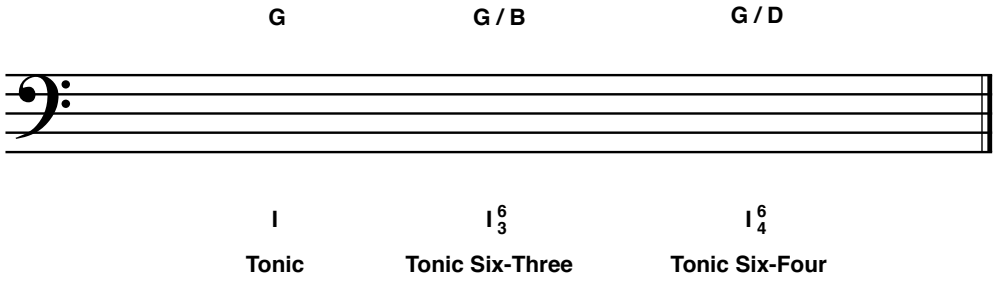
Chapter 10: The Six-Four Chord (Second Inversion), pp. 158 – 171.

An example of traditional symbols for root and inverted positions of the C major triad



Exercises with root and inverted triads

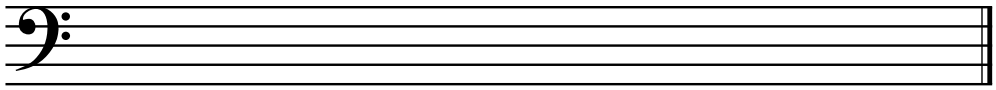
Please notate on the staff below a G major triad in its root and inverted positions



Exercises with root and inverted triads (continued)

Please notate on the staff below an F major triad in its root and inverted positions

F F / A F / C

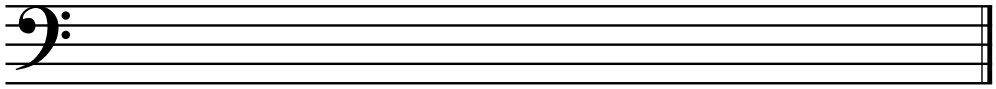


I I^6_3 I^6_4

Tonic Tonic Six-Three Tonic Six-Four

Please notate on the staff below a D major triad in its root and inverted positions

D D / F# D / A



I I^6_3 I^6_4

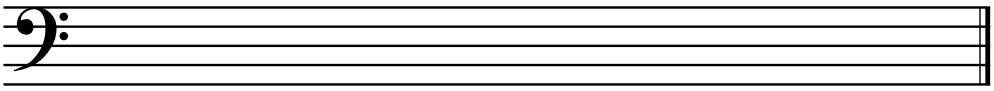
Tonic Tonic Six-Three Tonic Six-Four

Appendix B: Symbols for Root and Inverted Triads in Selected Major Keys (continued)

Exercises with root and inverted triads (continued)

Please notate on the staff below a Bb major triad in its root and inverted positions

Bb | Bb / D | Bb / F

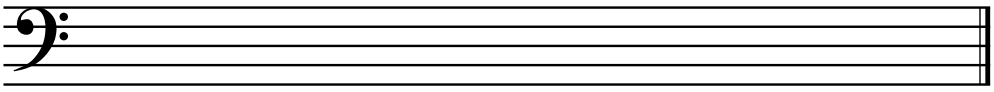


I | I^6_3 | I^6_4

Tonic | Tonic Six-Three | Tonic Six-Four

Please notate on the staff below a C# major triad in its root and inverted positions

C# | C# / E# | C# / G#



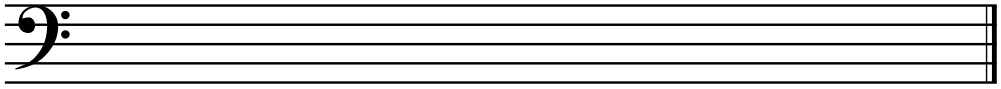
I | I^6_3 | I^6_4

Tonic | Tonic Six-Three | Tonic Six-Four

WORKBOOK

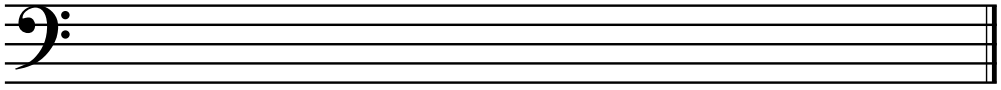
Appendix C:
Exercises with the Primary Triads in Selected Major Keys

Please notate on the staff below the primary triads in G major.



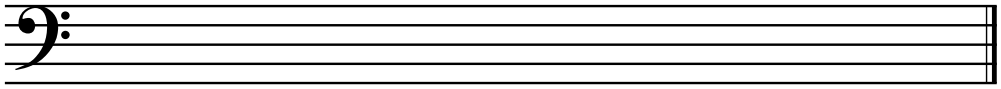
G Major: **I** **IV** **V**

Please notate on the staff below the primary triads in F major.



F Major: **I** **IV** **V**

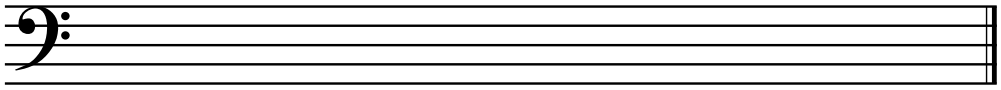
Please notate on the staff below the primary triads in Bb major.



Bb Major: **I** **IV** **V**

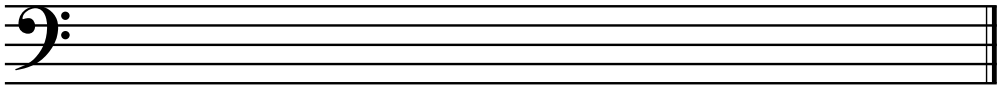
Appendix C: Exercises with the Primary Triads in Selected Major Keys (continued)

Please notate on the staff below the primary triads in Gb major.



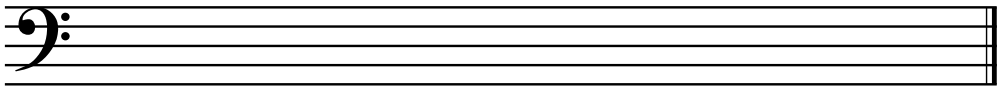
Gb Major: **I** **IV** **V**

Please notate on the staff below the primary triads in F# major.



F# Major: **I** **IV** **V**

Please notate on the staff below the primary triads in E major.



E Major: **I** **IV** **V**

WORKBOOK

Appendix D:
Symbols for Analysis of Triads in the Natural, Harmonic, and Melodic Minor Keys

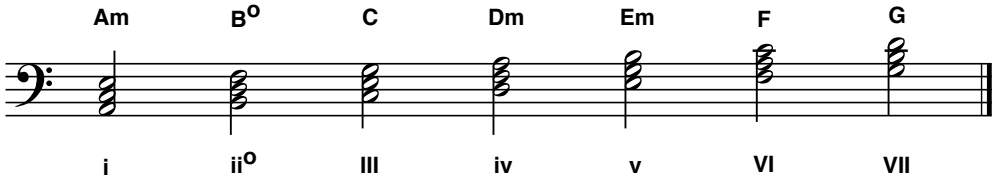
Recommended reading materials of minor modes (bibliography)

Piston, Walter and DeVoto, Mark. Harmony, Fifth Edition.

Part One: Tonal Harmony in Common Practice

Chapter 4: The Minor Mode, pp. 43 – 51.

Symbols for root position triads in A natural minor (the relative minor to C major)



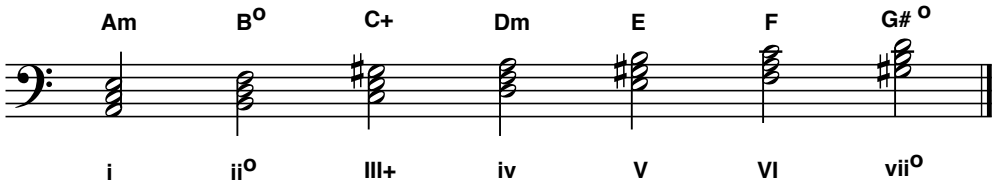
Nomenclature for triads in the natural minor scale

i	=	Tonic
ii	=	Supertonic
III	=	Mediant
iv	=	Subdominant
v	=	Dominant
VI	=	Submediant
VII	**=**	**SUBTONIC**

Note: The name for the seventh degree of the natural minor scale is different from its relative major scale. It is no longer a leading-tone chord; therefore, it is referred to as the subtonic chord, a whole step below the tonic. The names of the other six degrees, however, remain the same in either major or minor.

Appendix D: Instructions and Symbols for Analysis of Triads in Natural, Harmonic, and Melodic Minor Keys (continued)

Symbols for root position triads in <u>A harmonic minor</u> (the relative minor to C major)



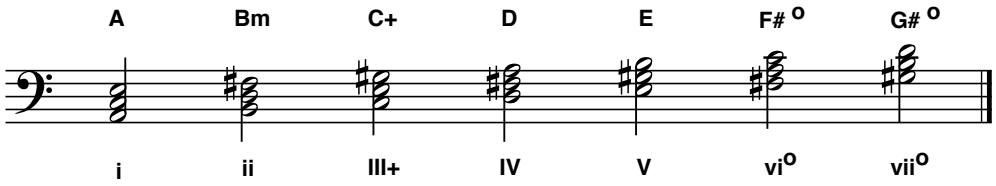
Nomenclature for triads in the harmonic minor scale (bold print indicates the triads that are altered)

i	=	Tonic
ii°	=	Supertonic
III+	**=**	**Mediant**
iv	=	Subdominant
V	**=**	**Dominant**
VI	=	Submediant
vii°	**=**	**Leading-Tone**

Note: The name for the harmony built on the seventh degree of the harmonic minor scale has the same name as the major scale due to the raised seventh degree. Altering the seventh degree of the harmonic minor scale affects not only the harmony of the seventh degree, but changes the dominant to a major triad and the mediant to an augmented triad. Therefore, by raising the seventh degree of the harmonic minor scale, it is the **odd number triads (III+, V, and vii°)** that are altered.

Appendix D: Instructions and Symbols for Analysis of Triads in Natural, Harmonic, and Melodic Minor Keys (continued)

Symbols for root position triads in <u>A ascending melodic minor</u> (the relative minor to C major)



Nomenclature for triads in the ascending melodic minor scale (the bold print below indicates the triads that are altered)

i	=	Tonic
ii	**=**	**Supertonic**
III+	=	Mediant
IV	**=**	**Subdominant**
V	=	Dominant
vi^{o}	**=**	**Submediant**
vii^{o}	=	Leading-Tone (Ascending Melodic Minor Scale)

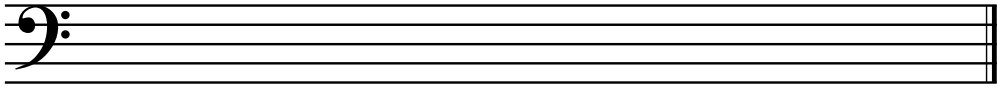
Note: The name for the harmony also built on the seventh degree of the <u>ascending</u> melodic minor scale, leading-tone triad, remains the same in the harmonic minor scale as well as its relative major scale. However, in the ascending melodic minor scale, it is the sixth degree that is raised; thereby, altering three chords. The three chords that are altered are the **even number chords: ii, IV, and vi^{o}.** The supertonic triad, which was diminished in the harmonic minor scale, now becomes a minor triad in the ascending melodic minor scale. The subdominant in the previous minor scale was minor but now is major. The last triad to be altered is the submediant, which was a major triad in the harmonic minor scale, but becomes a diminished triad in the ascending melodic minor scale.

However, in the <u>descending</u> melodic minor scale, the sixth and seventh degrees are lowered; therefore, it descends in the same manner as its natural minor scale or relative major scale, which, of course, will alter their respective harmonies. Therefore, in the descending melodic minor scale, the harmonies will be the same as the natural minor scale or relative major scale [see the harmonies for the "Natural Minor Scale"].

WORKBOOK

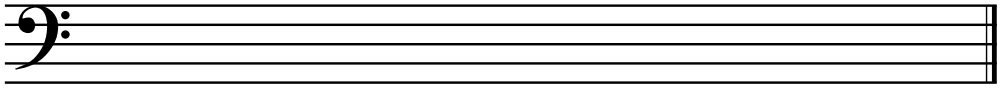
Appendix E:
Exercises with the Primary Triads in Selected Minor Keys

Write on the staff below the primary triads in G harmonic minor.



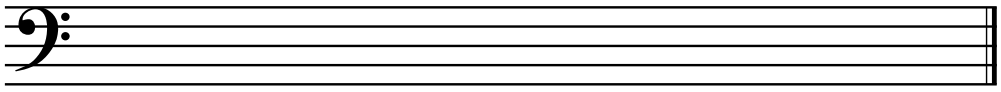
G Minor: **i** **iv** **V**

Write on the staff below the primary triads in A harmonic minor.



A Minor: **i** **iv** **V**

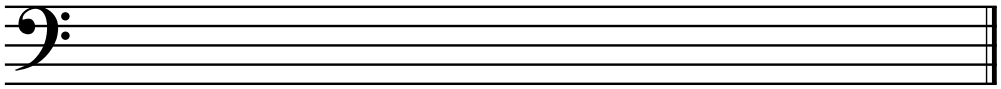
Write on the staff below the primary triads in D harmonic minor.



D Minor: **i** **iv** **V**

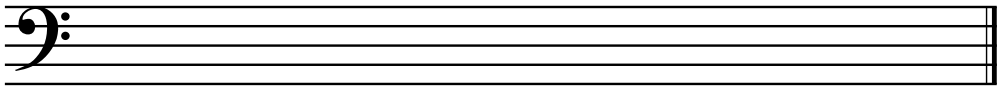
Appendix E: Exercises with the Primary Triads in Selected Minor Keys (continued)

Write on the staff below the primary triads in E harmonic minor.



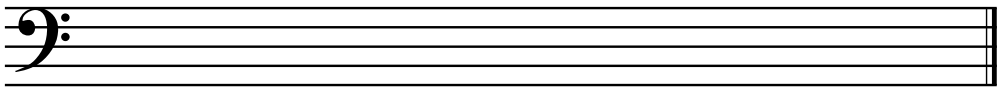
E Minor: **i** **iv** **V**

Write on the staff below the primary triads in B harmonic minor.



B Minor: **i** **iv** **V**

Write on the staff below the primary triads in F harmonic minor.



F Minor: **i** **iv** **V**

WORKBOOK

Appendix F:
Traditional Symbols for
Analysis of Seventh Chords and Intervallic Structures

Recommended reading materials of seventh chords (bibliography)

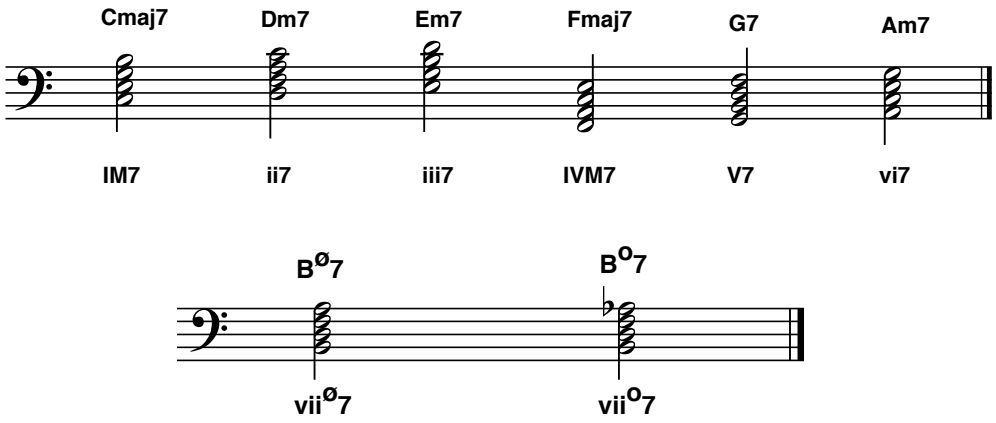
Piston, Walter and DeVoto, Mark. Harmony, Fifth Edition.

Part One: Tonal Harmony in Common Practice

Chapter 15: The Dominant Seventh Chord, pp. 243 – 256.

Chapter 23: Nondominant Harmony—Seventh Chords, pp. 353 – 374.

Traditional symbols and names for the seventh chords in C major



B Half-Diminished Seventh
(From the major scale)

B Full-Diminished Seventh
(Borrowed from the parallel harmonic minor)

Note: All the tones from the B half-diminished seventh chord are derived from its major scale; however, the B full-diminished seventh chord, its diminished seventh, A-flat, is borrowed from the diatonic sixth degree of its parallel C harmonic minor scale.

Appendix F: Traditional Symbols for
Analysis of Seventh Chords and Intervallic Structures
(continued)

Below are selected seventh chords

Listed below are a variety of important and common seventh chords built on the root C natural. Just because the root is C, does not mean the seventh chord belongs to the key of C major. What determines the key to which the seventh chord belongs will be based on the composite of notes from the seventh chord and its respective scale. Unlike the dominant seventh chord and half-diminished seventh chord where there is only one per scale, other types of seventh chords can belong to more than one key, as we shall experience below.

Seventh Chords

Seventh: B

Fifth: G

Third: E

Root: C

Pop Notation: CM7 or C maj.7

Academic Notation: C Major: IM7
G Major: IVM7
A Natural Minor: IIIM7

Intervallic Structure:

The intervallic structure of all major seventh chords is based on a major triad with a major seventh above its root. As indicated above, the CM7 chord can be found in several different keys. In C major, it functions as a tonic, but in G major it is the subdominant.

Appendix F: Traditional Symbols for
Analysis of Seventh Chords and Intervallic Structures
(continued)

Seventh Chords (continued)

Seventh: Bb

Fifth: G

Third: E

Root: C

Pop Notation: C7

Academic Notation: F Major: V7

Unlike the previous CM7 chord which belonged to C major or other keys such as G major and A natural minor, etc., the C Dominant Seventh chord belongs only to the key of F major, and no other key. Although the C7 can be borrowed in a key other than F major, it would still be the dominant seventh of F major regardless of the key. Therefore, in a key other than F major or its parallel harmonic minor, F minor, the C7 chord functions as a secondary dominant. In other words, whenever you have in a composition a dominant seventh chord that does not belong to the original key but from another key, whether or not it is closely related or remote, it is a borrowed dominant seventh chord which is referred to as a secondary dominant. As indicated earlier, each key has only one primary dominant seventh chord, any other dominant sevenths are secondary to the key.

Intervallic Structure:

The intervallic structure of all dominant seventh chords is based on a major triad with a minor seventh above its root.

Like the CM7 chord, the C7 chord also includes a major triad. They both only differ with the type of sevenths. The CM7 includes a major seventh, while the C7 includes a minor seventh.

Appendix F: Traditional Symbols for
Analysis of Seventh Chords and Intervallic Structures
(continued)

Seventh Chords

Seventh: Bb

Fifth: G

Third: Eb

Root: C

Pop Notation: Cm7

Academic Notation: C Minor: i7
Bb Major: ii7
Eb Major: vi7

Intervallic Structure:

The intervallic structure of all minor seventh chords is based on a minor triad with a minor seventh above its root.

Like the C7 chord, the Cm7 chord also includes a minor seventh above its root. However, they both differ with the type of third in its triad. The Cm7 includes a minor third, while the C7 includes a major third.

Appendix F: Traditional Symbols for
Analysis of Seventh Chords and Intervallic Structures
(continued)

Seventh Chords

Seventh: Bb

Fifth: G#

Third: E

Root: C

Pop Notation: C7
#5

Academic Notation: F Major: V7
#5

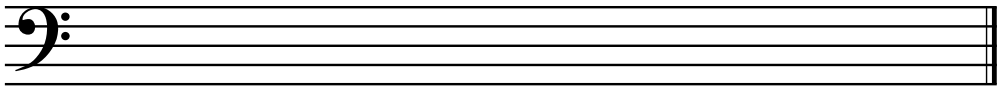
Intervallic Structure:

The intervallic structure of the C dominant seventh with a raised fifth consists of an augmented triad with a superimposed minor seventh above its root. Like the C7 chord in F major or F harmonic minor and F ascending melodic minor scales, the C7 #5 has the same function to support and reinforce the tonic. The primary difference between them is that the C7 #5 has the raised fifth, which produces a chromatic lower leading tone to the third of the tonic triad. In other words, in a C7 #5 chord in F major, the raised fifth, G sharp, chromatically resolves up to the third, A natural, of the F major tonic triad. Therefore in F major, the C7 #5 includes an unusually stronger pull to the third of the tonic triad by including both a lower leading tone (G sharp) as well as an upper leading tone (B flat). Due to its unusual resolution, emphasizing the third more than the root of the tonic triad, this seventh chord is used less often than the others.

Appendix F: Traditional Symbols for
Analysis of Seventh Chords and Intervallic Structures
(continued)

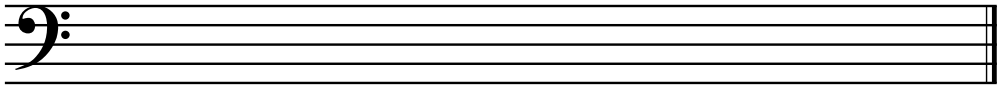
Exercises

Below on the staff, please write out the notes for all seven seventh chords in the key of G major.



G Major: **IM7** **ii7** **iii7** **IVM7** **V7** **vi7** **vii^{ø}7**

Below on the staff, please write out the notes for all seven seventh chords in the key of F major.

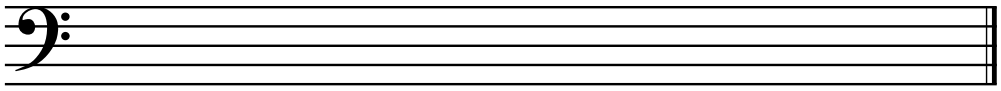


F Major: **IM7** **ii7** **iii7** **IVM7** **V7** **vi7** **vii^{ø}7**

Appendix F: Traditional Symbols for
Analysis of Seventh Chords and Intervallic Structures
(continued)

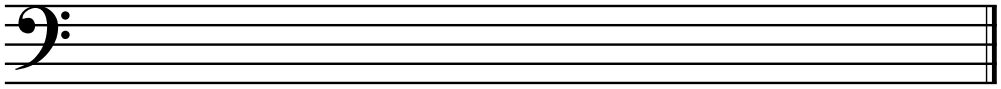
Exercises

Below on the staff, please write out the notes for all seven seventh chords in the key of B flat major.



Bb Major: IM7 ii7 iii7 IVM7 V7 vi7 vii^{ø}7

Below on the staff, please write out the notes for all seven seventh chords in the key of B major.

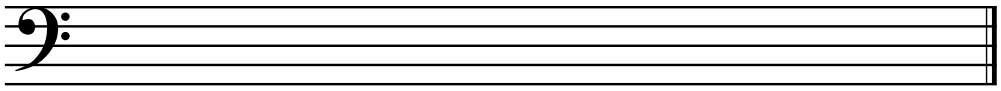


B Major: IM7 ii7 iii7 IVM7 V7 vi7 vii^{ø}7

Appendix F: Traditional Symbols for
Analysis of Seventh Chords and Intervallic Structures
(continued)

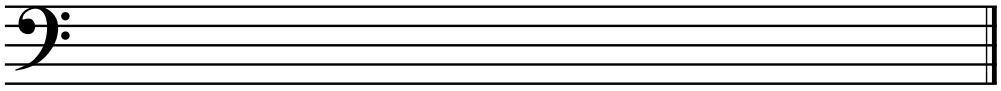
Exercises

Below on the staff, please write out the notes for all seven seventh chords in the key of D flat major.



Db Major: **IM7** **ii7** **iii7** **IVM7** **V7** **vi7** **vii^{ø}7**

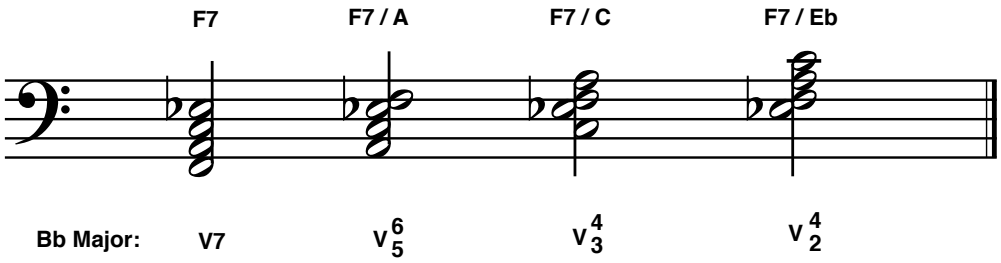
Below on the staff, please write out the notes for all seven seventh chords in the key of C sharp major.



C# Major: **IM7** **ii7** **iii7** **IVM7** **V7** **vi7** **vii^{ø}7**

Appendix F: Traditional Symbols for
Analysis of Seventh Chords and Intervallic Structures
(continued)

An example of traditional symbols for a dominant seventh chord in root and inverted positions.



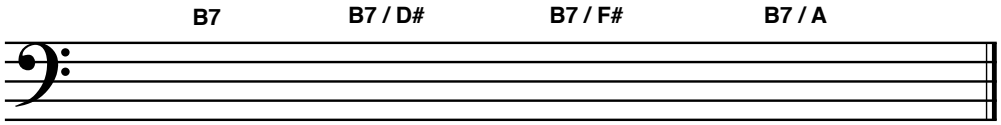
Bb Major:	V7	V^{6}_{5}	V^{4}_{3}	V^{4}_{2}

Complete:	**V7**	**V6**	**V6**	**V6**
	5	**5**	**4**	**4**
	3	**3**	**3**	**2**
Abbreviated:	**V7**	**V6**	**V4**	**V4**
		5	**3**	**2**
				Or: V2

Exercises

Below on the staff, please write out the following root and inverted positions of the dominant seventh chords in their respective keys.

Symbols for root and inverted positions of the B dominant seventh chord of E major.



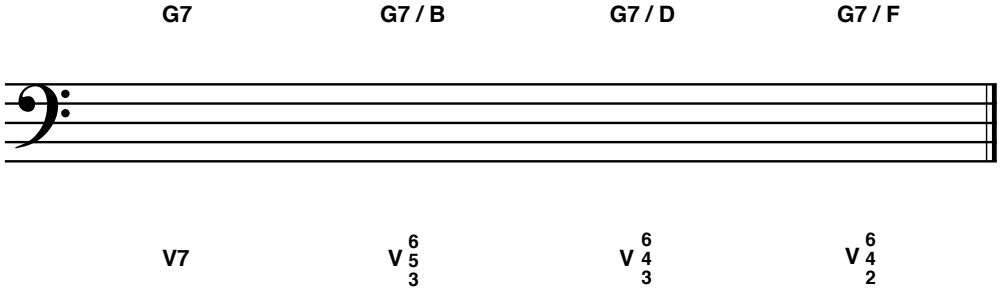
E Major:	V7	V^{6}_{5}	V^{4}_{3}	V^{4}_{2}

Appendix F: Traditional Symbols for
Analysis of Seventh Chords and Intervallic Structures
(continued)

Exercises

Below on the staff, please write out the following root and inverted positions of the dominant seventh chords in their respective keys.

Symbols for root and inverted positions of the G dominant seventh chord of C major (continued).

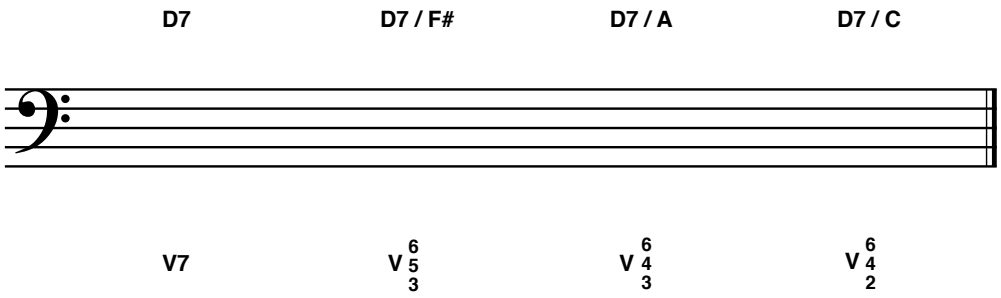


Appendix F: Traditional Symbols for
Analysis of Seventh Chords and Intervallic Structures
(continued)

Exercises

Below on the staff, please write out the following root and inverted positions of the dominant seventh chords in their respective keys.

Symbols for root and inverted positions of the D dominant seventh chord of G major (continued).

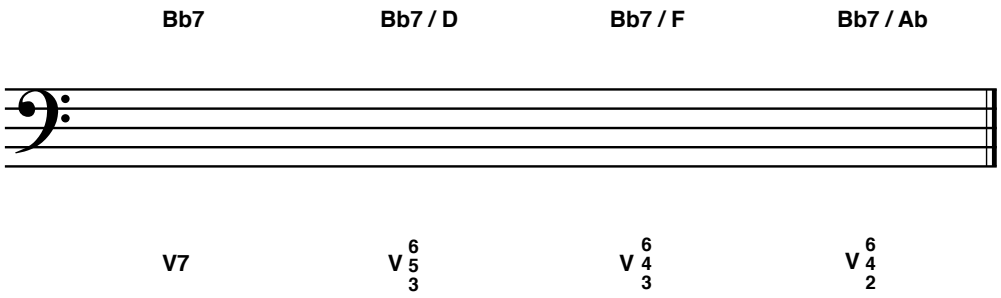


Appendix F: Traditional Symbols for
Analysis of Seventh Chords and Intervallic Structures
(continued)

Exercises

Below on the staff, please write out the following root and inverted positions of the dominant seventh chords in their respective keys.

Symbols for root and inverted positions of the Bb dominant seventh chord of Eb major (continued).



WORKBOOK

Appendix G:
Resolution of Selected Dominant Seventh Chords

Below are all the dominant seventh chords for each key derived from the circle of fifths for either the major or (harmonic and ascending melodic) minor keys.

What is so unique about the dominant seventh chord (a major triad with a minor seventh) is that each key only has one dominant seventh chord. In other words, each key has a dominant seventh chord that belongs only to that key and no other. For example, a G7 chord consists of G-B-D-F, equivalent to all the white keys on a piano from the C major scale. It is endemic of C major only, since it is the only key signature that includes no accidentals; i.e., flats or sharps. Although any dominant seventh chord may be borrowed from one key to another, G7 is unique only to C major. For example, in the key of G major, there is one sharp, F sharp; therefore, the G7 chord would be affected by its F sharp and become a G major seventh chord. Another closely related key to C major is F major, which includes one flat, B flat. If you flattened the B flat of a G7 chord, it would become a G minor seventh chord. As we have studied, all other keys have more flats and sharps, so it is evident that G7 is only indigenous to the key of C major.

Tonic (I or i). Dominant seventh chord (V7).

Circle of fifths, clockwise (ascending perfect fifths)

C = G7

G = D7

D = A7

A = E7

E = B7

B = F#7

F# = C#7

C# = G#7

Appendix G: Resolution of Selected Dominant Seventh Chords
(continued)

Tonic (I or i). Dominant seventh chord (V7).

Circle of fifths, counter-clockwise (descending perfect fifths)

C = G7

F = C7

Bb = F7

Eb = Bb7

Ab = Eb7

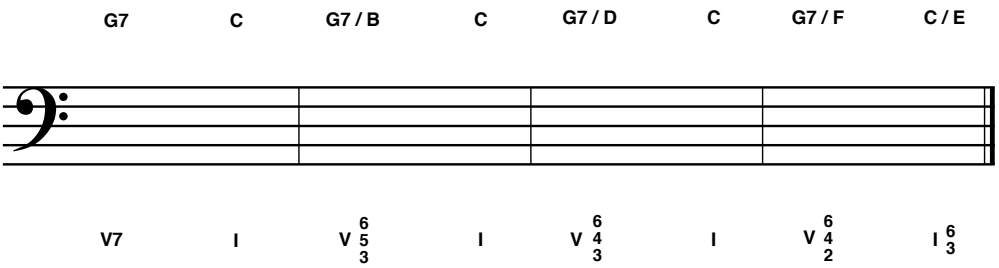
Db = Ab7

Gb = Db7

Cb = Gb7

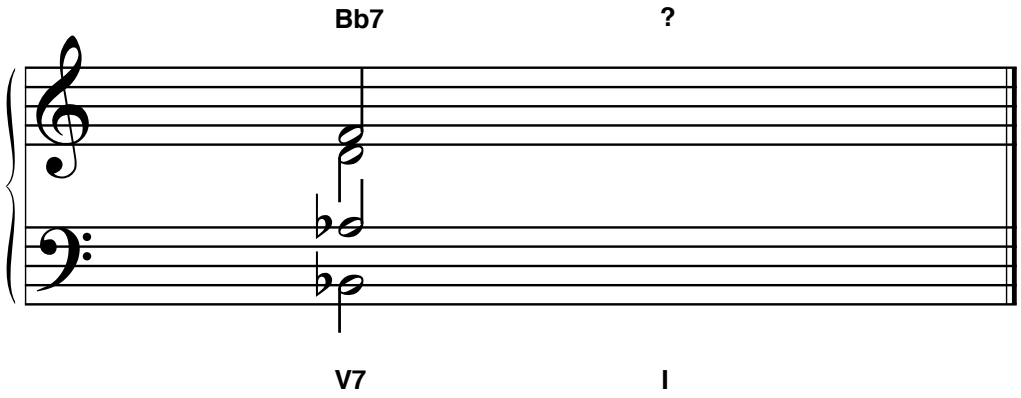
Resolution of dominant seventh chords

Resolve the following root and inverted dominant seventh chords to its respective tonic.

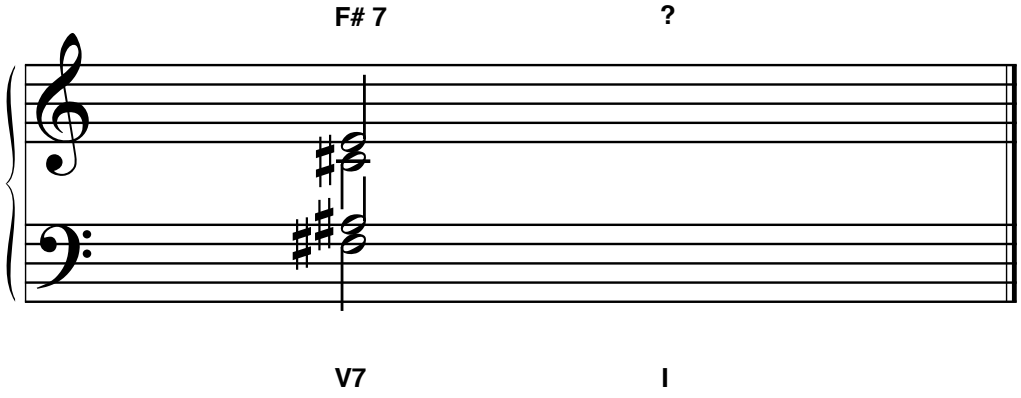


Appendix G: Resolution of Selected Dominant Seventh Chords
(continued)

Resolve the following root position dominant seventh chord to its respective tonic.

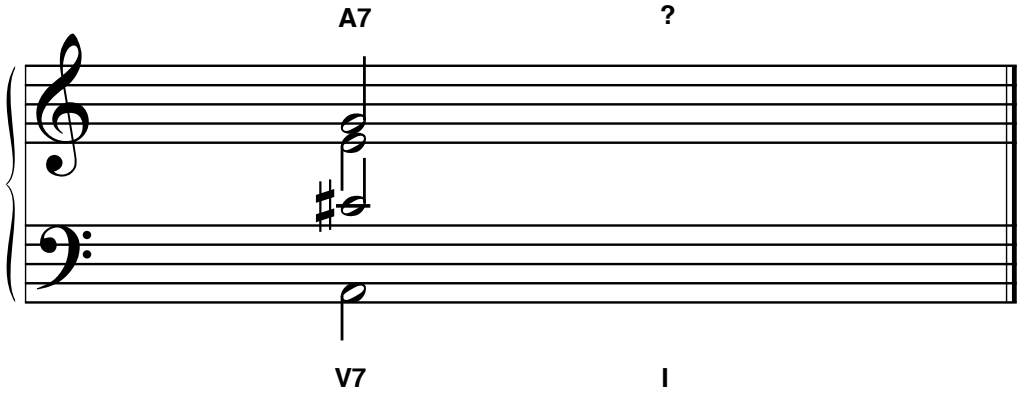


Resolve the following root position dominant seventh chord to its respective tonic.

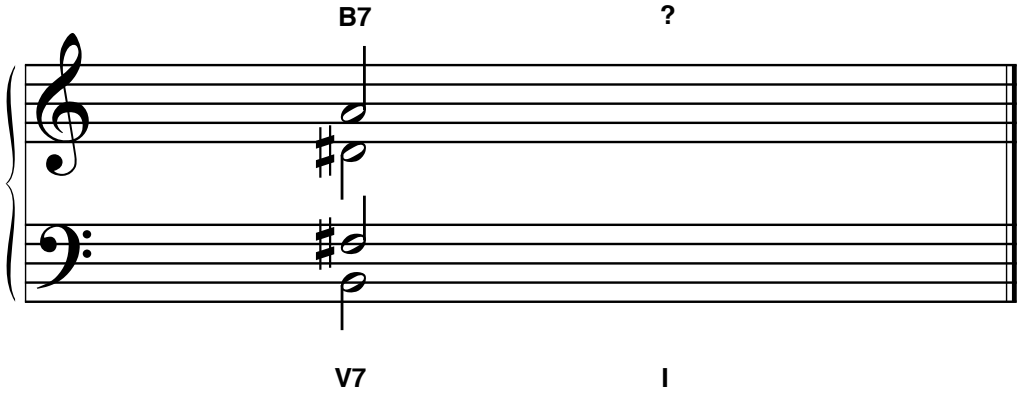


Appendix G: Resolution of Selected Dominant Seventh Chords
(continued)

Resolve the following root position dominant seventh chord to its respective tonic.

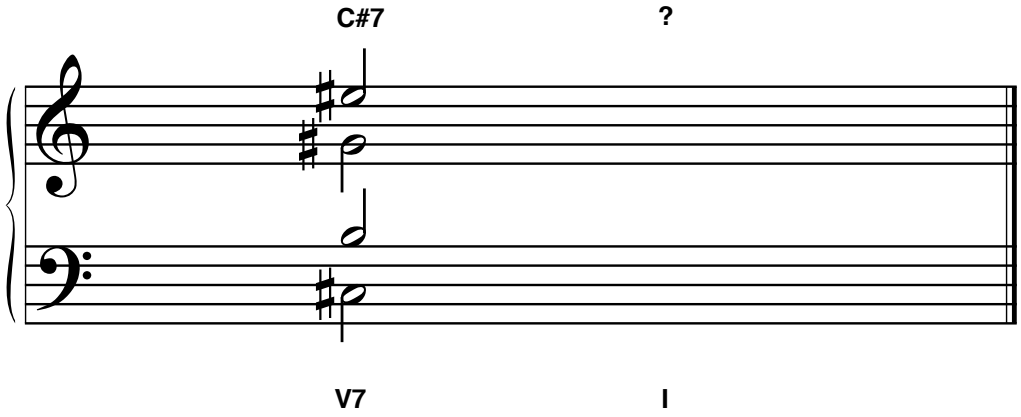


Resolve the following root position dominant seventh chord to its respective tonic.

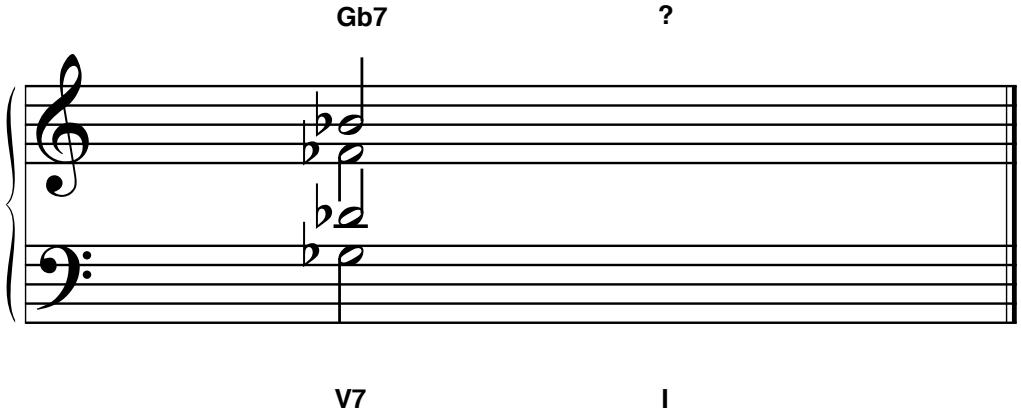


Appendix G: Resolution of Selected Dominant Seventh Chords
(continued)

Resolve the following root position dominant seventh chord to its respective tonic.

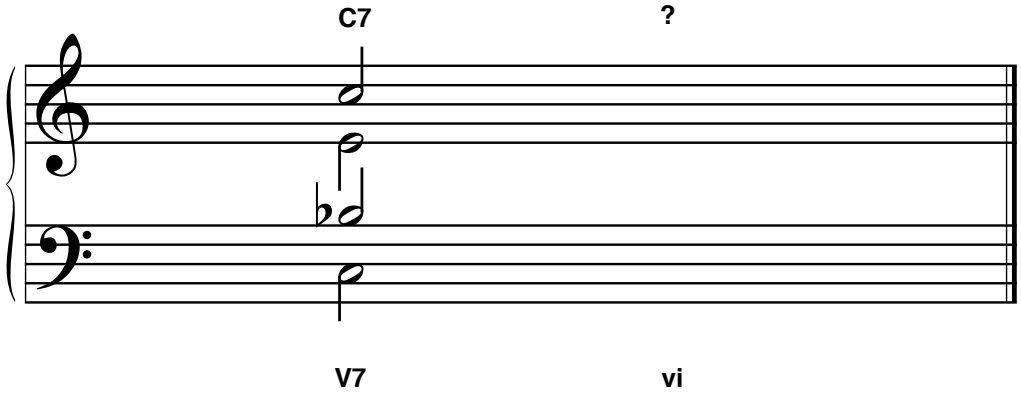


Resolve the following root position dominant seventh chord to its respective tonic.

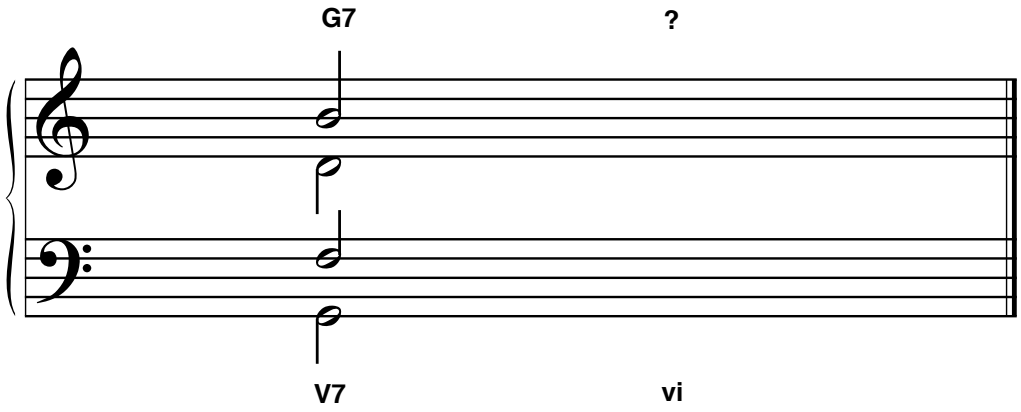


Appendix G: Resolution of Selected Dominant Seventh Chords
(continued)

Create a <u>deceptive</u> resolution of the following root position dominant seventh chord to its respective submediant.

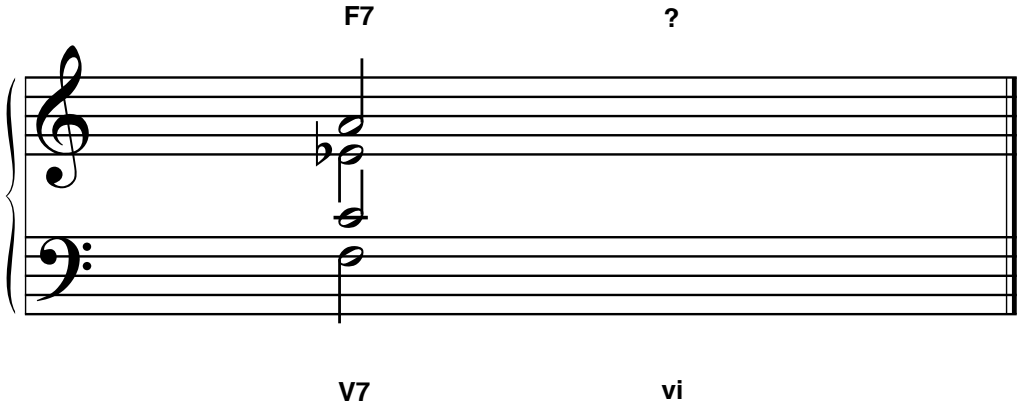


Create a <u>deceptive</u> resolution of the following root position dominant seventh chord to its respective submediant.

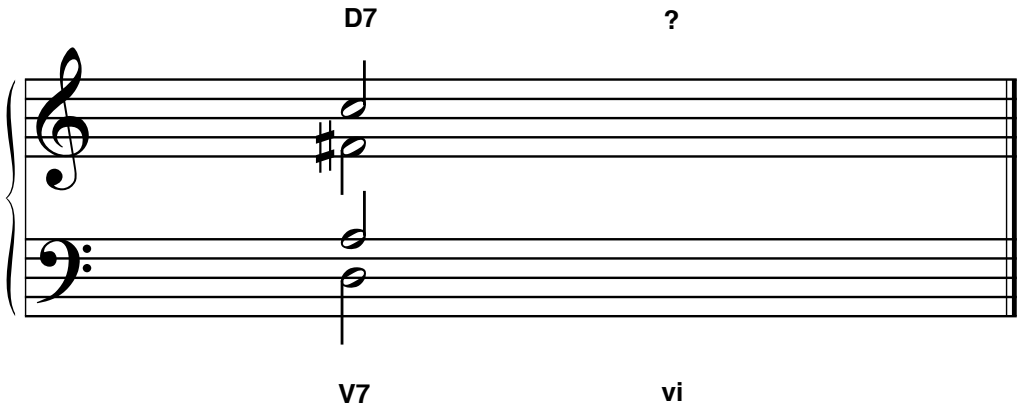


Appendix G: Resolution of Selected Dominant Seventh Chords
(continued)

Create a <u>deceptive</u> resolution of the following root position dominant seventh chord to its respective submediant.

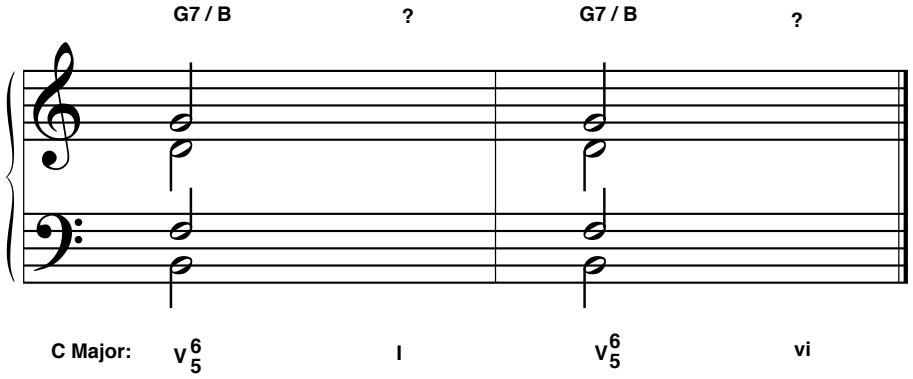


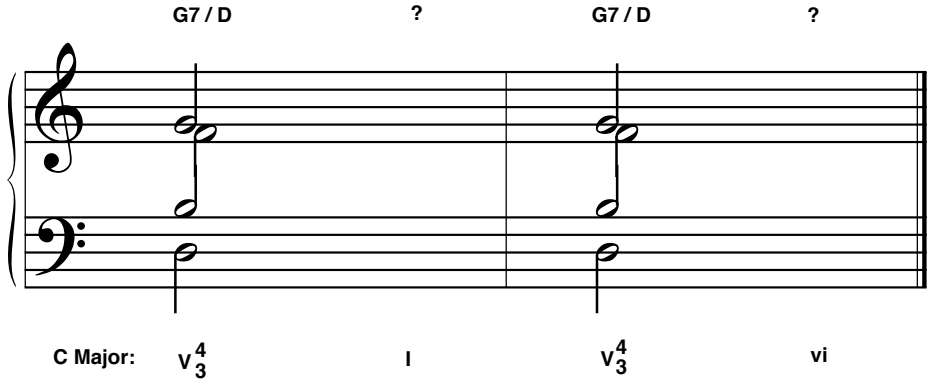
Create a <u>deceptive</u> resolution of the following root position dominant seventh chord to its respective submediant.

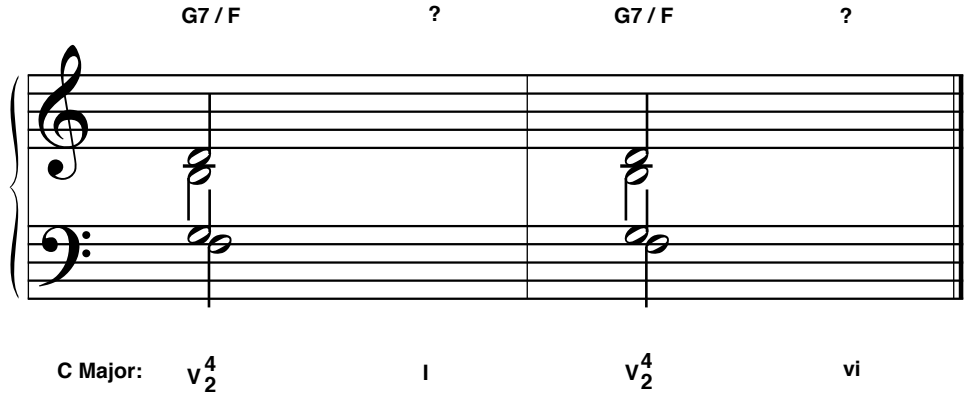


Appendix G: Resolution of Selected Dominant Seventh Chords (continued)

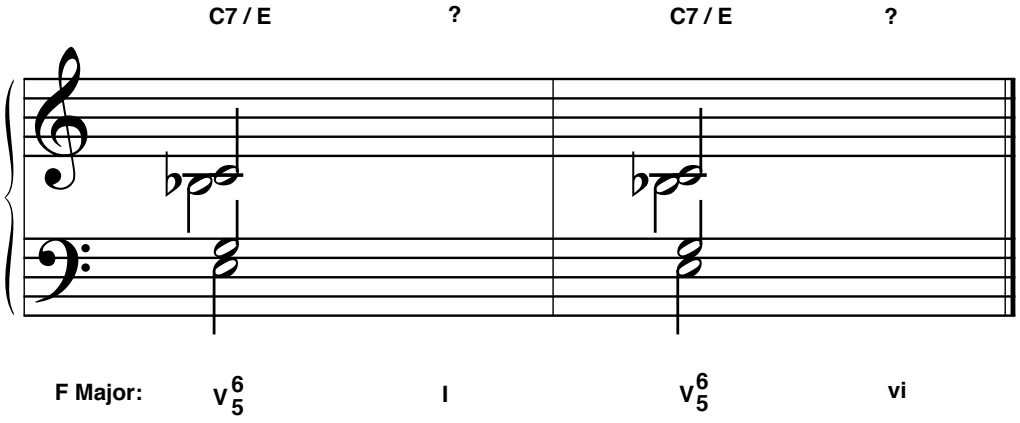
Below are inverted dominant seventh chords in C, G, and F major. Please resolve in four parts, the inverted dominant seventh chords to the tonic and submediant chords.
Note: The resolution of the dominant seventh chords below to either a tonic or submediant triad may be inverted. If the tonic or submediant triad is to be inverted, please indicate it with the appropriate symbol.

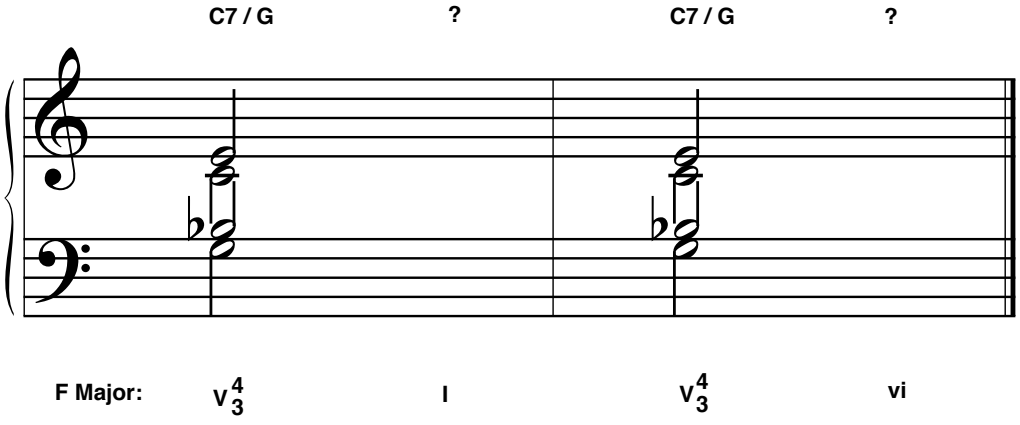


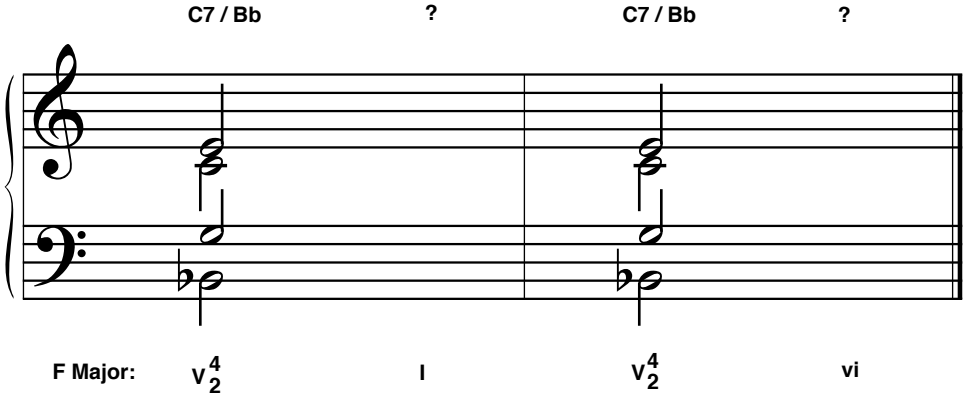




Appendix G: Resolution of Selected Dominant Seventh Chords
(continued)







Appendix G: Resolution of Selected Dominant Seventh Chords
(continued)