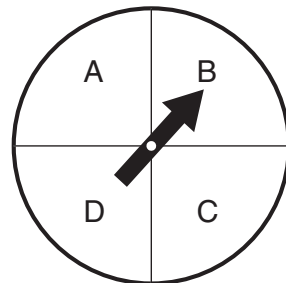


# Lesson 7 Skills Practice

## Independent and Dependent Events

For Exercises 1–6, a number cube is rolled and the spinner at the right is spun. Find each probability.



1.  $P(1 \text{ and } A) = \frac{1}{6} \cdot \frac{1}{4} = \frac{1}{24}$
2.  $P(\text{odd and } B) = \frac{1}{8}$
3.  $P(\text{prime and } D) = \frac{4}{6} \cdot \frac{1}{9} = \frac{1}{9}$
4.  $P(\text{greater than 4 and } C) = \frac{2}{6} \cdot \frac{1}{3} = \frac{1}{9}$
5.  $P(\text{less than 3 and consonant}) = \frac{3}{12} = \frac{1}{4}$
6.  $P(\text{prime and consonant}) = \frac{4}{6} = \frac{2}{3}$

7. What is the probability of spinning the spinner above 3 times and getting a vowel each time?

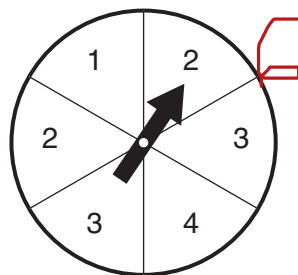
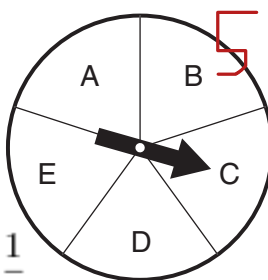
$$\frac{1}{64}$$

8. What is the probability of rolling a number cube 3 times and getting a number less than 3 each time?

$$\frac{1}{27}$$

Each spinner at the right is spun. Find each probability.

9.  $P(A \text{ and } 2) = \frac{1}{15}$
10.  $P(\text{vowel and even}) = \frac{2}{5} \cdot \frac{3}{6} = \frac{1}{5}$
11.  $P(\text{consonant and } 1) = \frac{1}{6} \cdot \frac{1}{10} = \frac{1}{60}$
12.  $P(D \text{ and greater than } 1) = \frac{1}{5} \cdot \frac{5}{6} = \frac{1}{6}$



There are 3 red, 1 blue, and 2 yellow marbles in a bag. Once a marble is selected, it is not replaced. Find each probability.

13.  $P(\text{red and then yellow}) = \frac{1}{5}$
14.  $P(\text{blue and then yellow}) = \frac{1}{15}$
15.  $P(\text{red and then blue}) = \frac{1}{10}$
16.  $P(\text{two yellow marbles}) = \frac{1}{15}$
17.  $P(\text{two red marbles in a row}) = \frac{1}{5}$
18.  $P(\text{three red marbles}) = \frac{1}{20}$

**GAMES** There are 13 yellow cards, 6 blue, 10 red, and 8 green cards in a stack of cards turned face down. Once a card is selected, it is not replaced. Find each probability.

19.  $P(2 \text{ blue cards}) = \frac{5}{222}$
20.  $P(2 \text{ red cards}) = \frac{5}{74}$
21.  $P(\text{a yellow card and then a green card}) = \frac{26}{333}$
22.  $P(\text{a blue card and then a red card}) = \frac{5}{111}$
23.  $P(\text{two cards that are not red}) = \frac{39}{74}$
24.  $P(\text{two cards that are neither red or green}) = \frac{19}{74}$