NAME Kylie Marie Emerson DATE 5/11/2021 PERIOD Math

Test, Form 3A

SCORE ~~49~~ / 60

Ms vickies zoom

Write the correct answer in the blank at the right of each question.

1. Keisha's family is planning a trip to Europe. If they want to visit each of the cities listed in the table at the right, in how many different orders can they do so?

City
Athens
Berlin
London
Paris
Rome

1. 5 x 5 = 25 -1

2. Employees at a company are given a three-digit employee identification code. If each digit cannot be repeated, how many different codes are possible?

2. 3 x 3 = 9 -1

3. There are 26 students in Mr. Everly's social studies class. Mr. Everly will randomly select one student as spokesperson and a second student as an alternate spokesperson for an upcoming presentation. In how many different ways can they be chosen?

3. 26 -1

4. Drew spun a spinner with 5 equal sections 75 times. Each section of the spinner was a different color. One of the colors was blue. The outcome of "blue" occurred 30 times. Compare the theoretical to the experimental probability of spinning blue.

-1

4. 5 x 75 = 375

5. The table at the right shows the voting preferences for registered voters. Describe a model that you could use to simulate the selection of a candidate.

Candidate	Percent of Voters
Sanchez	45
Ledo	30
Carroll	15
Undecided	10

5. tree diagram

For Exercises 6 and 7, find the total number of outcomes that will be in each sample space.

6. buying bedroom furniture if you can select one each from 7 dressers, 4 beds, 6 lamps, and 9 night tables

6. 7 x 4 x 6 x 9 = 1512

7. tossing a dime, a quarter, a penny, a nickel, and rolling a number cube

7. 2 x 2 x 2 x 2 x 6 = 96

8. How many ways can 4 friends sit together at the movies in 4 seats?

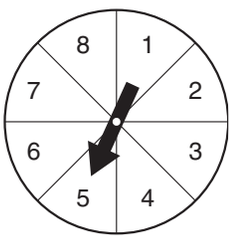
8. 4 x 4 = 16 -1

NAME _____ DATE _____ PERIOD _____

Test, Form 3A *(continued)*

SCORE _____

Use the spinner to find each probability.



9. *P*(even number) — **9.** $\frac{4}{8}$ $\frac{1}{2}$

10. *P*(2 or 3) — **10.** $\frac{2}{8} = \frac{1}{4}$

11. *P*(*not* 4) — **11.** $\frac{7}{8}$

12. The spinner is spun twice. Find *P*(5, then 8). $\frac{1}{8}$ $\frac{1}{8}$ — **12.** $\frac{1}{64}$

A bag contains 4 white beads, 6 red beads, 5 yellow beads, and 5 blue beads. One bead is selected, kept, and another bead is selected.

13. Find *P*(blue, then blue). $\frac{5}{20} = \frac{1}{4}$ $\frac{4}{19}$ — **13.** $\frac{1}{19}$

14. Find *P*(white, then red). — **14.** $\frac{6}{95}$

$\frac{4}{20} = \frac{1}{5}$ $\frac{6}{19}$

15. Sohan rolled a number cube 90 times. The outcome of "6" occurred 18 times. Compare the theoretical to the experimental probability of rolling a 6. $\frac{1}{6}$ theo 15 exper 16 — **15.** _____ -1

Find each value.

16. *P*(8, 5) $P(n, r)$ — **16.** 8, 7, 6, 5, 4, -1

$^nP_r = \frac{n!}{(n-r)!}$

17. *P*(10, 2) — **17.** 10, 9 -1

18. *P*(11, 4) — **18.** 11, 10, 9, 8 -1

19. A bowl contains 7 pennies, 9 nickels, and 4 dimes. Elyse removes one coin at random from the bowl and does not replace it. She then removes a second coin at random. What is the probability that both will be dimes? $7 + 9 + 4 = 20$ $\frac{4}{20}$ $\frac{3}{19}$ — **19.** 260 -1

20. There are 100 prize tickets in a bowl, numbered 1 to 100. What is the probability that an even numbered prize ticket will be chosen at random, not replaced, then an odd numbered prize ticket will be chosen? Does this represent an independent or dependent event? Explain. dependent — **20.** $\frac{50}{99}$ -1

$\frac{50}{100} = \frac{1}{2}$ $\frac{50}{99}$