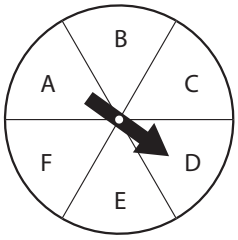
NAME _____ DATE _____ PERIOD _____

Unit 16 Test Review

SCORE _____

For Exercises 1–3, use the spinner shown. Determine the probability of each event. Write as a fraction in simplest form. TEKS 7.6(E)



1. $P(\text{C})$ $\frac{1}{6}$
2. $P(\text{vowel})$ $\frac{1}{3}$
3. $P(\textit{not}\ \text{D})$ $\frac{5}{6}$

For Exercises 4–7, determine the total number of outcomes in each sample space. TEKS 7.6(A)

4. picking a month of the year and tossing a coin **24**
5. rolling a number cube labeled 1–6 and tossing a nickel **12**
6. choosing a number from 1 to 10 and a day of the week **70**
7. choosing a setting on a washing machine from regular, delicate, or extra dirty; a water temperature from hot, warm, or cold water; and a cycle from regular rinse or extra rinse **18**
8. A store is handing out coupons worth 10%, 15%, 20%, or 25% off. Each coupon is equally likely to be handed out. Describe a simulation that could be used to model this situation. TEKS 7.6(B)

   Sample answer: spinning a spinner with four equal sections

A number cube labeled 1–6 is rolled and a letter is selected from the word MUSIC. Determine each probability. TEKS 7.6(D)

9. $P(\text{2 and S})$ $\frac{1}{30}$
10. $P(\text{6 and consonant})$ $\frac{1}{10}$

For Exercises 11 and 12, Bailey tossed a coin 10 times. The results were 7 heads and 3 tails. TEKS 7.6(C), 7.6(I)

11. Determine the experimental probability of tossing tails. $\frac{3}{10}$
12. Compare the theoretical and experimental probabilities of tossing heads.

    The theoretical probability $\frac{1}{2}$ is less than the experimental probability $\frac{7}{10}$.
13. Sohan rolled a number cube 90 times. She rolled the number 6 a total of 18 times. Compare the theoretical and the experimental probabilities of rolling a 6. TEKS 7.6(I)

    The theoretical probability $\frac{1}{6}$ is less than the experimental probability $\frac{1}{5}$.

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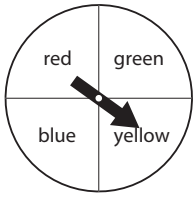
Chapter 5 Test, Form 1A *(continued)*

SCORE _____

14. Alice spins a spinner and rolls a number cube labeled 1–6. The spinner and the number cube are shown.



What is the probability that Alice's spinner will land on green and she will roll a 6?

TEKS 7.6(D) $\frac{1}{24}$

15. A bag contains 4 red marbles and 2 white marbles. A marble is selected, kept out of the bag, and then another marble is selected. What is *P*(red, then white)? TEKS 7.6(D)

$\frac{4}{15}$

16. Stacey rolls two number cubes. What is the probability that the sum of the numbers on the two number cubes is 7? TEKS 7.6(D) $\frac{1}{6}$

17. A jar contains 5 blue marbles, 6 yellow marbles, and 4 green marbles. What is the probability of randomly choosing a yellow marble, not replacing it, and then choosing a blue marble? TEKS 7.6(D) $\frac{1}{7}$

18. Mary must select a colored ball from a bag. The bag contains 1 red ball, 1 blue ball, 1 green ball, 1 orange ball, and 1 yellow ball. Predict her chances of selecting a green ball. TEKS 7.6(D) $\frac{1}{5}$

19. Seven cards are numbered from 1 to 7 and placed in a box. One card is selected at random and not replaced. Another card is randomly selected. What is the probability of selecting two odd numbers? TEKS 7.6(D) $\frac{2}{7}$

20. The table shows the results of an experiment Jane conducted using a box of colored disks. She repeated the process of selecting one disk, noting its color, and returning it to the box. Based on experimental probability, how much more likely is it that the next disk drawn will be purple than green? Use a problem-solving model to solve. TEKS 7.6(D)

Color	Yellow	Green	Orange	Purple	Blue
Number of Times Selected	18	9	15	11	12

$\frac{2}{65}$