NAME _____ DATE _____ PERIOD _____

12 Chapter 12 Test, Form 2A

SCORE _____

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

For Questions 1–4, draw a tree diagram or use the Fundamental Counting Principle to find the number of possible outcomes.

1. A day of the week and a letter of the alphabet are picked at random.

A. 182 **B.** 33 **C.** 168 **D.** 312 **1.** _____

2. A number cube is rolled two times, and then a quarter is tossed.

F. 24 **G.** 36 **H.** 72 **J.** 14 **2.** _____

3. There are 4 choices for each of 7 multiple-choice questions on a quiz.

A. 11 **B.** 28 **C.** 16,384 **D.** 2,401 **3.** _____

4. A month of the year is picked at random and a coin is tossed.

F. 13 **G.** 14 **H.** 24 **J.** 48 **4.** _____

5. **TRANSPORTATION** In the last 30 days, the city bus has been late 6 times. What is the experimental probability that the bus will be late tomorrow?

A. $\frac{1}{5}$ **B.** $\frac{1}{6}$ **C.** $\frac{1}{15}$ **D.** $\frac{1}{30}$ **5.** _____

6. **BASEBALL** In practice, Derek made a hit 9 out of 33 times at bat. What is the experimental probability that he will make a hit?

F. $\frac{3}{11}$ **G.** $\frac{1}{3}$ **H.** $\frac{3}{10}$ **J.** $\frac{3}{8}$ **6.** _____

In a bag, there are 5 green candies, 3 red candies, and 7 orange candies. Once a candy is selected, it is not replaced. Find each probability.

7. P(a red candy and then an orange candy)

A. $\frac{1}{10}$ **C.** $\frac{7}{10}$

B. $\frac{7}{75}$ **D.** $\frac{1}{6}$ **7.** _____

8. P(two green candies)

F. $\frac{2}{21}$ **H.** $\frac{13}{21}$

G. $\frac{2}{3}$ **J.** $\frac{1}{9}$ **8.** _____

For Questions 9 and 10, use the following information. A number cube is rolled and a card is drawn from a deck of ten cards numbered 1 to 10. Find each probability.

9. P(3 on the number cube and 9 on the card)

A. $\frac{1}{240}$ **B.** $\frac{4}{15}$ **C.** $\frac{1}{60}$ **D.** $\frac{1}{8}$ **9.** _____

10. P(odd on the number cube and less than 7 on the card)

F. $\frac{3}{40}$ **G.** $\frac{3}{10}$ **H.** $\frac{1}{2}$ **J.** $\frac{7}{10}$ **10.** _____

Assessment

NAME _____ DATE _____ PERIOD _____

12 Chapter 12 Test, Form 2A *(continued)*

FOOD For Questions 11–12, use the results of a survey of 120 people shown at the right.

Favorite Pies	
apple	45
peach	5
blueberry	27
cherry	19
pumpkin	18
raspberry	6

11. What is the probability that a person's favorite pie is peach?

A. $\frac{1}{8}$ **B.** 5 **C.** $\frac{1}{20}$ **D.** $\frac{1}{24}$ **11.** _____

12. What is the probability that a person's favorite pie is *not* apple?

F. $\frac{3}{5}$ **H.** $\frac{3}{8}$

G. $\frac{3}{4}$ **J.** $\frac{5}{8}$ **12.** _____

13. BASKETBALL Kenneth has made 12 of his last 26 three-point shots. What is the probability that he will make his next two three-point shots?

A. $\frac{36}{169}$ **C.** $\frac{13}{65}$

B. $\frac{18}{113}$ **D.** $\frac{1}{6}$ **13.** _____

14. To determine the lunch menu most students prefer, the cafeteria manager selects 10 students at random from each grade. Describe the sample.

F. stratified random

G. systematic random

H. convenience

J. voluntary response **14.** _____

ELECTIONS For Questions 15 and 16, use the following information. As voters leave the polling place, 200 voters are surveyed at random. Ninety voters said they voted for the incumbent mayor.

15. What percent said they voted for the incumbent?

A. 19% **B.** 35% **C.** 45% **D.** 90% **15.** _____

16. If 1,200 people vote, how many do you think will vote for the incumbent?

F. 228 people

G. 420 people

H. 540 people

J. 1,080 people **16.** _____

Bonus Each arrangement of the letters of the word *BONUS* is placed on a piece of paper. One paper is drawn at random. What is the probability that the word ends in **US**? **B:** _____