NAME _____ DATE _____ PERIOD _____

12 Chapter 12 Test, Form 2B

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 month of the year and a day of the week are picked at random.

A. 19 **B.** 48 **C.** 84 **D.** 96 **1.** _____

2. A number cube is rolled, and then a nickel and a dime are tossed.

F. 8 **G.** 10 **H.** 12 **J.** 24 **2.** _____

3. There are 5 choices for each of 6 multiple-choice questions on a quiz.

A. 30 **B.** 15,625 **C.** 7,776 **D.** 11 **3.** _____

4. A day of the week is picked at random and a number cube is rolled.

F. 84 **G.** 42 **H.** 13 **J.** 2 **4.** _____

5. **TRANSPORTATION** In the last 14 days, Xavier's bus has been late 5 times. What is the experimental probability that the bus will be late tomorrow?

A. $\frac{1}{19}$ **B.** $\frac{1}{14}$ **C.** $\frac{5}{19}$ **D.** $\frac{5}{14}$ **5.** _____

6. **BASEBALL** In practice, Jason made a hit 8 out of 34 times at bat. What is the experimental probability that he will make a hit?

F. $\frac{8}{17}$ **G.** $\frac{4}{17}$ **H.** $\frac{1}{8}$ **J.** $\frac{1}{34}$ **6.** _____

For Questions 7 and 8, use the following information. In a bag, there are 3 red marbles, 5 white marbles, and 7 blue marbles. Once a marble is selected, it is not replaced. Find each probability.

7. P(two red marbles)

A. $\frac{1}{5}$ **C.** $\frac{1}{25}$

B. $\frac{1}{35}$ **D.** $\frac{12}{35}$ **7.** _____

8. P(a blue marble and then a white marble)

F. $\frac{7}{45}$ **H.** $\frac{173}{210}$

G. $\frac{1}{6}$ **J.** $\frac{4}{5}$ **8.** _____

For Questions 9 and 10, use the following information. A number cube is rolled and a card is drawn from a deck of twelve cards numbered 1 to 12. Find each probability.

9. P(5 on the number cube and 8 on the card)

A. $\frac{1}{4}$ **B.** $\frac{1}{306}$ **C.** $\frac{1}{9}$ **D.** $\frac{1}{72}$ **9.** _____

10. P(greater than 2 on the number cube and even on the card)

F. $\frac{2}{3}$ **G.** $\frac{1}{2}$ **H.** $\frac{1}{3}$ **J.** $\frac{4}{51}$ **10.** _____

Assessment

NAME _____ DATE _____ PERIOD _____

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

DRINKS For Questions 11 and 12, use the results of a survey of 60 people shown at the right.

Favorite Fruit Juices	
orange	21
grapefruit	6
pineapple	10
apple	15
tomato	8

11. What is the probability that a person's favorite juice is apple?

A. $\frac{1}{4}$ **B.** 15 **C.** $\frac{3}{20}$ **D.** $\frac{1}{5}$ **11.** _____

12. What is the probability that a person's favorite juice is *not* pineapple?

F. $\frac{1}{6}$ **H.** 10

G. $\frac{5}{6}$ **J.** $\frac{1}{2}$ **12.** _____

13. BASKETBALL This season, Sue has made 75% of her free throw shots. What is the probability that she will make her next three free throw shots?

A. $\frac{36}{169}$ **C.** $\frac{27}{64}$

B. $\frac{15}{37}$ **D.** $\frac{32}{49}$ **13.** _____

14. To evaluate the satisfaction of its customers, a local car dealer selects every tenth customer on its alphabetic customer list. Describe the sample.

F. voluntary response

G. convenience

H. stratified random

J. systematic random **14.** _____

ELECTIONS For Questions 15 and 16, use the following information. As voters leave the polling place, 250 voters are surveyed at random. Seventy-five voters said they voted for the incumbent mayor.

15. What percent said they voted for the incumbent?

A. 30% **B.** 45% **C.** 50% **D.** 75% **15.** _____

16. If 1,400 people vote, how many do you think will vote for the incumbent?

F. 420 people

G. 630 people

H. 700 people

J. 1,050 people **16.** _____

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