Choose the correct answer. Place letter answers in the blanks. Show all work.

_____ 1. You have a bag containing 30 pieces of candy. In the bag you find 12 pieces of gum, 7 jolly ranchers, 5 fireballs, and 6 milk duds. What is the probability of drawing out a fireball?

    A. $\frac{1}{5}$ B. $\frac{2}{5}$ C. $\frac{1}{6}$ D. $\frac{7}{30}$

_____ 2. What is the probability of drawing an orange golf ball from a box containing 8 orange golf balls, 6 white golf balls, and 6 yellow golf balls?

    A. 30%   B. 40%   C. 50%   D. 60%

_____ 3. If tossing a number cube with an odd number face up is a favorable outcome, how many different favorable outcomes are possible?

    A. 2 outcomes   B. 3 outcomes   C. 4 outcomes   D. 6 outcomes

_____ 4. In Brittany's experiment, there are 6 cards facing down on the table. There are six possible outcomes: F, R, I, E, N, D. What is the chance Brittany will choose a card that has a vowel written on it?

    A. 0   B. $\frac{1}{6}$ C. $\frac{2}{5}$ D. $\frac{1}{3}$

_____ 5. Of 30 people surveyed at a baseball game, 18 preferred French fries with cheese and 12 preferred them plain. If the stadium plans to buy 120 servings of fries, how many servings of cheese should be bought?

    A. 18 servings   B. 36 servings   C. 50 servings   D. 72 servings

_____ 6. A student survey of 100 students showed these results about favorite ice cream flavor.

    CHOCOLATE FUDGE ------------------------- 40
    COOKIES-N-CREAM ------------------------- 30
    FUDGE RIPPLE --------------------------------- 6
    NO FAVORITE ---------------------------------- 24

Based on the above data, out or 1,000 students, how many would choose chocolate fudge?

    A. 4 students   B. 40 students   C. 400 students   D. 4,000 students

_____ 7. Of 50 people surveyed, 18 preferred rock, 12 preferred rap, 5 preferred classical, and 15 preferred music in miscellaneous categories. If a store owner ordered 500 CDs, how many should be rock CDs?

    A. 60   B. 90   C. 180   D. 200

_____ 8. At a car wash, three options are available: regular, super, and deluxe. Out of 20 customers, twelve chose the deluxe option. If 400 customers use the car wash this week, how many would you expect to use the deluxe option?

    A. 100 customer   B. 120 customers
    C. 160 customers   D. 240 customers

_____ 9. Josie experimented with tossing a colored cube 60 times. The table below shows the frequency of each color face up.

Red ------------- 8   Yellow ---------------- 10
Blue ------------ 12   White ---------------- 10
Green ---------- 11   Purple ---------------- 9

What is the experimental probability of rolling a blue?

A. $\frac{1}{6}$ B. $\frac{1}{5}$ C. $\frac{1}{4}$ D. $\frac{1}{2}$
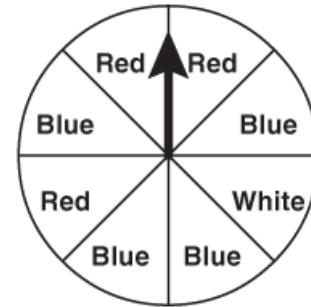
_____ 10. Using the information from # 9, what is the theoretical probability of rolling blue?

A. $\frac{1}{6}$ B. $\frac{1}{5}$ C. $\frac{1}{4}$ D. $\frac{1}{2}$

Answer questions 11-13 using the spinner at the right. Show all work.

11.

Probability	Fraction	Percent
P (blue)		
P (red)		
P (not white)		
P (green)		
P (blue or white)		

12. If you spin the spinner 120 times, about how many times would you expect to spin blue?

_____

13. If you spin the spinner 120 times, about how many times would you expect to spin white?

_____

14.   What is the theoretical probability of tossing a coin and landing on heads? (percent)

_____

15. In conducting an experiment, you tally the number of times a coin lands on heads. Which experiment would lead to results closest to the theoretical probability? Circle your answer.

50 trials   600 trials   10 trials   1,000 trials   250 trials   75 trials

16. Explain your answer for # 15. _____

_____

Math 7.9—Probability
Answer Key

1. C
2. B
3. B
4. D
5. D
6. C
7. C
8. D
9. B
10. A
11. (blue) $\frac{1}{2}$; 50 %

    (red) $\frac{3}{8}$; 37.5%

    (not white) $\frac{7}{8}$; 87.5%

    (green) $\frac{0}{8}$; 0%

    (blue or white) $\frac{5}{8}$; 62.5%

12. 60 times
13. 15 times
14. 50%
15. Circle 1,000
16. Answers may vary