

NAME: _____

DATE: _____

QUIZ - PROBABILITY

PERIOD: _____

Read question carefully. Write the capital letter of your answer on the line. Show your work when necessary.

1. Which describes the probability of tossing a number less than 6 on a number cube with faces labeled 1-6?

- A) impossible
- B) unlikely
- C) likely
- D) certain

Answer: _____

2. The digits 1 through 9 are written on separate sheets of paper and put in a hat. What is the probability of drawing the number 8 from the hat?

- A) $\frac{1}{10}$
- B) $\frac{1}{9}$
- C) $\frac{4}{9}$
- D) $\frac{1}{3}$

Answer: _____

Murray has tossed a coin 120 times. The coin landed on heads 54 times.

3. What is the *theoretical probability* that the coin will land on heads on the next toss?

- A) $\frac{9}{20}$
- B) $\frac{1}{2}$
- C) $\frac{11}{20}$
- D) $\frac{3}{4}$

Answer: _____

4. What is the *experimental probability* that the coin will land on heads on the next toss?

- A) $\frac{9}{20}$
- B) $\frac{1}{2}$
- C) $\frac{11}{20}$
- D) $\frac{3}{4}$

Answer: _____

5. In a spot check of cartons of eggs, Matilda found that 6 out of 200 eggs were cracked. If the store has 3,000 eggs for sale, how many can expect to be cracked?
- A) 60
 - B) 90
 - C) 600
 - D) 900

Answer: _____

6. Mia practiced her penalty kicks with her brother as the goalie. The table shows the results of Mia's attempts.

| Result | Frequency |
|---------------|------------------|
| Goal | 22 |
| Goalie Save | 8 |
| Missed Wide | 6 |
| Overshot Goal | 4 |

Based on this data, how many goals can Mia expect to score if she takes 200 penalty kicks?

- A) 90
- B) 100
- C) 110
- D) 120

Answer: _____

Describe the likelihood of the event given its probability.

7. The probability that it will snow today is zero. _____
8. You make a free throw 70% of the time. _____
9. Your band marches in $\frac{1}{6}$ of the parades. _____

You randomly choose a marble from a jar. The jar contains 4 red marbles, 10 blue marbles, 7 green marbles, and 6 yellow marbles. Find the probability of the event. Write your answer as a fraction in simplest form.

10. Choosing a green marble _____

11. Not choosing a blue marble _____

12. Choosing a yellow marble _____

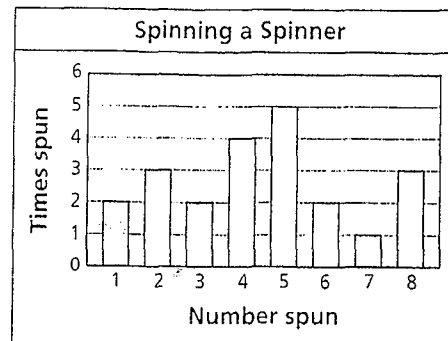
Use the bar graph to find the experimental probability of the event. Write your answer as a fraction in simplest form.

13. $P(3) =$ _____

14. $P(\text{multiple of } 4) =$ _____

15. $P(5 \text{ or } 7) =$ _____

16. $P(\text{number greater than } 3) =$ _____



17. The plant produces 1200 packages of grapes. An inspector randomly chooses 24 packages and discovers that 8 of the packages have broken seals. How many of the 1200 packages of grapes would you expect to have broken seals?

Show your work below.

Answer: _____ packages of grapes with broken seals

18. You have 160 songs on your MP3 player. The probability of randomly choosing a rock is 0.7. How many of the songs on your MP3 player are rock?

Show your work below.

Answer: _____ rock songs

In a classroom, the probability that the teacher chooses a boy from 20 students is 45%.

19. How many students are *not* boys? _____

Show your work below.

20. Describe the likelihood of *not* choosing a boy. _____