

Unit 8: Probability and Sampling

PRACTICE · SET 2

Name: _____ Date: _____

Solve each problem and write your answer as an exact number, fraction in lowest terms, or short value. Show the fraction using / (for example, $\frac{3}{4}$).

1. A bag holds 4 red, 3 blue, and 5 green marbles. You pick one marble at random. What is the probability it is green? Give your answer as a fraction in lowest terms.

Answer: _____

3. A spinner has 8 equal sections numbered 1 through 8. What is the probability of landing on a number greater than 5? Give your answer as a fraction in lowest terms.

Answer: _____

5. You flip a fair coin and roll a standard 6-sided die. What is the probability of getting tails AND a 6? Give your answer as a fraction in lowest terms.

Answer: _____

7. You roll two standard 6-sided dice and add the two numbers. What is the probability the sum equals 7? Give your answer as a fraction in lowest terms.

Answer: _____

9. A factory inspects a random sample of 25 light bulbs and finds 5 defective. Based on this sample, estimate how many defective bulbs are in a batch of 500.

Answer: _____

2. A bag holds 4 red, 3 blue, and 5 green marbles. You pick one marble at random. What is the probability it is NOT red? Give your answer as a fraction in lowest terms.

Answer: _____

4. You roll a standard 6-sided die once. What is the probability of rolling a number less than 3? Give your answer as a fraction in lowest terms.

Answer: _____

6. You spin two spinners, each with 4 equal sections numbered 1 through 4. What is the probability that both spinners land on 3? Give your answer as a fraction in lowest terms.

Answer: _____

8. In a survey of 40 randomly chosen students, 12 said they prefer soccer. Based on this sample, estimate how many of the 300 students in the whole grade prefer soccer.

Answer: _____

10. A coin is flipped 60 times and lands on heads 36 times. What is the experimental probability of heads for this coin? Give your answer as a fraction in lowest terms.

Answer: _____

11. The probability that it rains on a certain day is $\frac{2}{7}$. What is the probability that it does NOT rain that day? Give your answer as a fraction in lowest terms.

Answer: _____

12. A box contains 10 cards numbered 1 through 10. You draw one card at random. What is the probability the number is prime? Give your answer as a fraction in lowest terms.

Answer: _____