Unit 8: Probability and Sampling

CONCEPT

Name: _____ Date: _____

Solve each problem. Give probabilities as fractions in lowest terms unless told otherwise, and show your final answer clearly.

1. A bag has 3 red marbles and 5 blue marbles. You pick one marble without looking. What is the probability it is red? Give your answer as a fraction in lowest terms.

Answer: _____

2. A standard number cube has faces 1, 2, 3, 4, 5, 6. What is the probability of rolling a 4? Give your answer as a fraction in lowest terms.

Answer: _____

3. A spinner has 4 equal sections colored red, blue, green, and yellow. What is the probability of landing on green? Give your answer as a fraction in lowest terms.

Answer: _____

4. The probability that it rains tomorrow is 2/5. What is the probability that it does NOT rain tomorrow? Give your answer as a fraction in lowest terms.

Answer: _____

5. A jar has 10 candies: 4 lemon and 6 cherry. You take one candy without looking. What is the probability it is cherry? Give your answer as a fraction in lowest terms.

Answer: _____

6. You flip a fair coin one time. What is the probability of getting heads? Give your answer as a fraction in lowest terms.

Answer: _____

7. A number cube is rolled once. What is the probability of rolling an even number (2, 4, or 6)? Give your answer as a fraction in lowest terms.

Answer: _____

8. A box has 20 pencils, and 5 of them are broken. What is the probability of picking a broken pencil? Give your answer as a fraction in lowest terms.

Answer: _____

9. A survey of 50 students found that 30 like pizza. Based on this sample, if a school has 500 students, about how many would you estimate like pizza?

Answer: _____

10. A spinner has sections numbered 1 through 8, all equal size. What is the probability of landing on a number less than 4 (that is, 1, 2, or 3)? Give your answer as a fraction in lowest terms.

Answer: _____

11. A bag of 12 fruit snacks has 3 grape ones. You pick one without looking. What is the probability it is NOT grape? Give your answer as a fraction in lowest terms.

Answer: _____

12. In a sample of 40 light bulbs, 2 were found to be defective. Based on this sample, out of 200 bulbs, about how many would you estimate are defective?

Answer: _____