



Probability: Real World Practice

Name: _____

Grade: 8 _____

Date: _____

Practice probability concepts with real-life scenarios. Find theoretical and experimental probability, simulate events, and solve compound probability problems. Try the interactive mini-quizzes for instant feedback!

⚡ Quick Check

1) Probability of heads in a fair coin?

2) What do you call an outcome in probability?

3) Probability of two events together is called ...?

Part 1 · Theoretical Probability

THEORY

1. What is the probability of rolling a 3 on a fair six-sided die?

2. What is the probability of picking a red card from a standard deck?

3. What is the probability of getting tails in a coin toss?

4. What is the probability of picking a vowel from the word "PROBABILITY"?

5. What is the probability of picking a number less than 5 from 1 to 10?

6. What is the probability of rolling an even number on a die?

Part 2 · Experimental Probability

EXPERIMENT

7. You toss a coin 20 times and get 12 heads. What is the experimental probability of heads?
8. You roll a die 30 times and get a 4 eight times. What is the experimental probability of rolling a 4?
9. You pick a marble from a bag 50 times and get a blue marble 15 times. What is the probability?
10. You spin a spinner 40 times and land on green 10 times. What is the probability?
11. You draw a card 25 times and get a heart 7 times. What is the probability?
12. You flip two coins 20 times and get two heads 6 times. What is the probability?

Part 3 · Compound Probability

COMPOUND

13. What is the probability of rolling a 2 and then a 5 on a die?
14. What is the probability of flipping two heads in two coin tosses?
15. What is the probability of picking a red and then a black card from a deck?

16. What is the probability of rolling two even numbers on two dice?

17. What is the probability of picking two vowels from "PROBABILITY"?

18. What is the probability of getting heads and then tails in two coin tosses?

Part 4 · Real World Practice

REAL WORLD

19. Drawing Marbles

A bag has 5 red, 3 blue, and 2 green marbles. What is the probability of picking a blue marble?

20. Rolling Dice

What is the probability of rolling a sum of 7 with two dice?

21. Picking Students

There are 12 boys and 8 girls in a class. What is the probability of picking a girl?

22. Flipping Coins

What is the probability of getting at least one head in two coin tosses?

23. Drawing Cards

What is the probability of drawing an ace from a standard deck?

Answer Key

1. $\frac{1}{6}$
2. $\frac{1}{2}$
3. $\frac{1}{2}$
4. $\frac{4}{11}$
5. $\frac{4}{10} = \frac{2}{5}$
6. $\frac{3}{6} = \frac{1}{2}$
7. $\frac{12}{20} = \frac{3}{5}$
8. $\frac{8}{30} = \frac{4}{15}$
9. $\frac{15}{50} = \frac{3}{10}$
10. $\frac{10}{40} = \frac{1}{4}$
11. $\frac{7}{25}$
12. $\frac{6}{20} = \frac{3}{10}$
13. $\frac{1}{36}$
14. $\frac{1}{4}$
15. $\frac{1}{2}$
16. $\frac{9}{36} = \frac{1}{4}$
17. $\frac{2}{11} \times \frac{1}{10} = \frac{2}{110}$
18. $\frac{1}{4}$
19. $\frac{3}{10}$
20. $\frac{1}{6}$
21. $\frac{2}{5}$
22. $\frac{3}{4}$
23. $\frac{1}{13}$

Each question uses probability in a real-life scenario. Encourage students to show work and explain reasoning.