

Probability Quick Questions — 0–1 Scale Grid

The Probability Scale

Probability tells us how likely an event is to happen. We write probability as a number from **0** to **1**.

Key benchmarks on the 0–1 scale:

Probability	What it means	Example
0	Impossible — will never happen	Rolling a 7 on a normal die
0.25 ($\frac{1}{4}$)	Unlikely	Spinning a spinner with 4 equal sections and landing on red
0.5 ($\frac{1}{2}$)	Even chance — equally likely or unlikely	Flipping heads on a fair coin
0.75 ($\frac{3}{4}$)	Likely	Picking a red marble from a bag of 3 red and 1 blue
1	Certain — will always happen	The sun rising tomorrow

To find the probability of an event: $P(\text{event}) = \text{number of favourable outcomes} \div \text{total number of possible outcomes}$.

Place each of the following events on the probability scale below by writing the letter in the correct position.

- A. Flipping tails on a fair coin
- B. Rolling a number less than 7 on a standard die
- C. Picking a blue marble from a bag of 10 red marbles
- D. Drawing an even number from cards numbered 1–10
- E. It will rain somewhere in the world today
- F. Spinning a spinner with 3 equal sections and landing on section 1

Probability Scale

0 (Impossible)

0.5 (Even chance)

1 (Certain)

Probability Quick Questions Grid

Answer each question below. Write your probability as a fraction, decimal, or percentage — or all three! Use the scale from Section 1 to help you.

Remember: $\frac{1}{2} = 0.5 = 50\%$ | $\frac{1}{4} = 0.25 = 25\%$ | $\frac{3}{4} = 0.75 = 75\%$

Q1. A bag has **5 red** and **5 blue** marbles. What is the probability of picking a red marble?

P(red) = _____

Where does this sit on the 0–1 scale?

Q2. A fair die is rolled. What is the probability of rolling a **6**?

P(6) = _____

Is this likely or unlikely? _____

Q3. A spinner has **4 equal sections** coloured red, blue, green, and yellow. What is the probability of landing on green?

P(green) = _____

Write this as a decimal: _____

Q4. A jar has **3 lollies**: 1 strawberry, 1 cola, 1 mango. You pick one without looking. What is the probability of getting strawberry?

P(strawberry) = _____

Write as a percentage: _____

Q5. A bag has **8 green** counters and **2 yellow** counters. What is the probability of picking a yellow?

$P(\text{yellow}) =$ _____

Is this closer to 0 or 1? _____

Q6. Cards numbered **1 to 10** are shuffled. What is the probability of picking a card greater than 7?

Favourable outcomes: _____

$P(\text{greater than } 7) =$ _____

Q7. A coin is flipped. What is the probability of getting **heads or tails**?

$P(\text{heads or tails}) =$ _____

What type of event is this?

Q8. A box has **6 apples**. You pick one fruit. What is the probability of picking an orange?

$P(\text{orange}) =$ _____

What type of event is this?

Q9. A spinner has **3 sections**: 2 red, 1 blue. What is the probability of landing on **red**?

$P(\text{red}) =$ _____

Mark this on the 0–1 scale: closer to

Q10. A bag has **4 purple**, **3 orange**, and **3 white** beads. What is the probability of picking a purple bead?

$P(\text{purple}) =$ _____

Write as a decimal: _____

Q11. A die is rolled. What is the probability of rolling an **even number**?

Even numbers on a die: _____

$P(\text{even}) =$ _____

Q12. A bag has **10 blue** marbles only. What is the probability of picking a blue marble?

$P(\text{blue}) =$ _____

What is this type of event called?

Reflect & Create

Think about what you have practised. Use these questions to show your understanding and push your thinking further.

R1. Write your **own** example of an event with a probability of exactly 0.5 . Explain why.

R2. Which question from the grid did you find *trickiest*? What made it difficult?

R3. Design your own. Create a probability question using a bag of coloured marbles. Write the question, then work out the answer.

My question:

My answer:
