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 (¼)	Unlikely	Spinning a spinner with 4 equal sections and landing on red
0.5 (½)	Even chance — equally likely or unlikely	Flipping heads on a fair coin
0.75 (¾)	Likely	Picking a red marble from a bag of 3 red and 1 blue
1	Certain — will always happen	The sun rising tomorrow

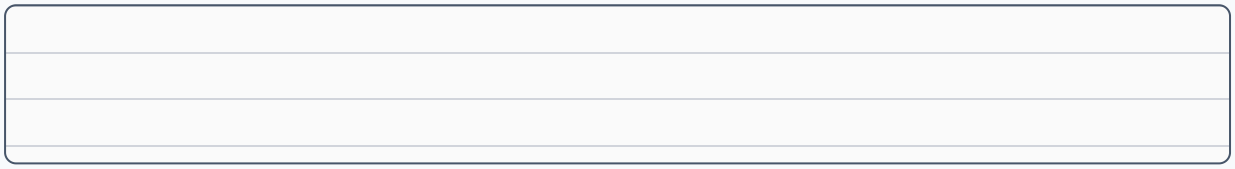
To find the probability of an event: *P(event) = number of favourable outcomes ÷ total number of possible outcomes.*

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: *½ = 0.5 = 50%* | *¼ = 0.25 = 25%* | *¾ = 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(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(greater than 7) = _____

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

P(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(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(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(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(even) = _____

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

P(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: