

Probability as a decimal and percentage

MODULE 7 · DATA, CHANCE AND THE CO-ORDINATE PLANE

SHAPE & SPACE

Probability measures how likely something is to happen. Write it as a **fraction**: number of ways the event can happen ÷ total number of equally likely outcomes.

- Rolling a 6 on a die: $\frac{1}{6}$. As a decimal ≈ 0.17 , or about **17%**.
- Drawing a red card from a full deck: $\frac{26}{52} = \frac{1}{2} = 0.5 = \mathbf{50\%}$.

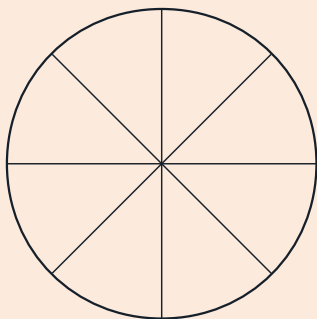
HOW TO ANSWER TODAY

- **Probability.** Probability = outcomes you want ÷ total outcomes. Write as a fraction, decimal, or percent.

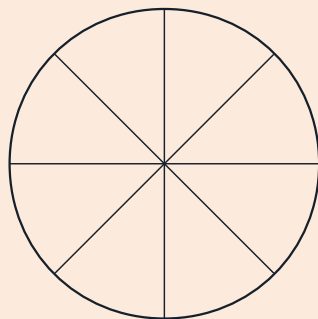
Spinner with 4 equal parts, 1 red → $\frac{1}{4} = 0.25 = 25\%$

TRY IT ON THE LINE

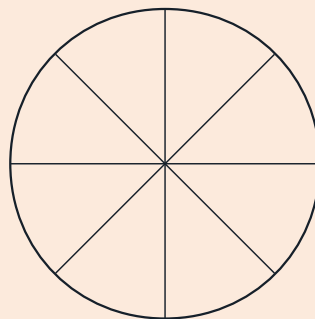
Use each eight-sector circle as a separate spinner. Shade the favourable outcomes, then write the probability three ways — as a fraction, a decimal, and a percent.



Spinner A — WIN



Spinner B — JACKPOT



Spinner C — NOT win

1. Spinner A: shade **three** sectors for a WIN outcome. $P(\text{WIN}) = \frac{\quad}{8} = \quad$ (decimal) = $\quad\%$
2. Spinner B: shade **one** sector for the rare JACKPOT outcome. $P(\text{JACKPOT}) = \frac{\quad}{8} = \quad = \quad\%$
3. Spinner C: shade the sectors that are NOT a win (the leftover from Spinner A). $P(\text{NOT win}) = \frac{\quad}{8} = \quad = \quad\%$