Guide to:
Probability & Probability Scale

maths Links

Explanation:

Probability measures how likely an event is on a scale from **0 (impossible)** to **1 (certain)**, with **0.5 or $\frac{1}{2}$ (even chance)** in the middle. Always write probabilities as **fractions, decimals, or percentages** — never as ratios or words like "3 out of 10".

For equally likely outcomes, P(event) = $\frac{\text{successful outcomes}}{\text{total possible outcomes}}$. Because all mutually exclusive outcomes add up to **1**, the probability that an event does **not** happen is P(not *A*) = 1 − P(*A*).



Example 1: A bag has **5 red**, **3 blue**, and **4 green** counters. One is picked at random. Find:
(a) P(blue) (b) P(not red) (c) P(yellow)

Total = 5 + 3 + 4 = 12 counters:

(a) P(blue) = $\frac{3}{12} = \frac{1}{4}$ (b) P(not red) = $\frac{7}{12}$

(c) No yellow counters → P(yellow) = **0**

Example 2: In chess, P(Sam wins) = **0.45** and P(draw) = **0.20**. Work out P(Sam loses).

- All mutually exclusive outcomes sum to **1**:
- P(win or draw) = 0.45 + 0.20 = 0.65
- P(lose) = 1 − 0.65 = **0.35**

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Corbettmaths (Practice)	Qs	Ans	**PMT (AQA)**	Qs	Ans
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