

Probability

Chapter 25: Probability · Topic 1

Key Concept

The probability of an event is calculated as favourable outcomes divided by total possible outcomes, ranging from 0 (impossible) to 1 (certain).

For combined events using 'and', we often multiply probabilities (for independent events), while 'or' events often involve addition.

A sample space lists all possible outcomes of an experiment, essential for correctly calculating probabilities.

Understanding probability helps us make informed decisions and predictions in various real-life situations, from games to risk assessment.

Quick Revision Notes

- Probability = favourable outcomes ÷ total outcomes.
- Range: 0 (impossible) to 1 (certain).
- 'And' events (independent): multiply probabilities.
- 'Or' events: often involve addition.
- Sample space lists all possible outcomes.
- This is essential for correct probability calculation.
- Probability aids informed decisions and predictions.
- Applications: games, risk assessment, more.

Practice Questions

- 1 Calculate the probability of rolling an even number on a die.
- 2 Calculate the probability of getting heads twice in two coin tosses.
- 3 Discuss a sample space for a simple experiment.
- 4 Solve a combined event probability problem.
- 5 Discuss a real-life example of probability.
- 6 Explain independent events in your own words.