

Probability

Chapter 5: 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).

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

For mutually exclusive events (cannot happen together), the probability of either occurring is the sum of their individual 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).
- Sample space: all possible outcomes.
- Essential for correct probability calculation.
- Mutually exclusive events: can't happen together.
- Their combined probability: sum of individual.
- Probability aids informed decisions.
- Applications: games, risk assessment.

Practice Questions

- 1 Calculate the probability of drawing a red card from a deck.
- 2 Calculate the probability of rolling an even number on a die.
- 3 Discuss a sample space for tossing two coins.
- 4 Solve a mutually exclusive events probability problem.
- 5 Discuss a real-life example of probability.
- 6 Explain probability in your own words.