

List all outcomes for compound events both with and without...

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Learning intention

- list all outcomes for compound events both with and without replacement, using lists, tree diagrams, tables or arrays; assign probabilities to outcomes

Teach and model

- discussing two-step chance experiments, such as the game of Heads and Tails, describing the different outcomes and their related probabilities
- using systematic methods such as lists or arrays to record outcomes and assign probabilities, such as drawing the names of students from a bag to appoint 2 team...
- using a tree diagram to represent a three-stage event and assigning probabilities to these events; for example, selecting 3 cards from a deck, assigning the probability...

Check understanding

- Explain the main idea in list all outcomes for compound events both with and without... using an example.
- Show the idea in a second way: with words, a model, a diagram or symbols.
- Apply the idea to a short unfamiliar situation and justify the result.

Teaching cautions

- Ask the student to explain their choice, not only state an answer.
- Check that key vocabulary is understood in a new example.
- Mix representations so the skill is transferred rather than copied.

Quick lesson sequence

- Connect to prior knowledge and introduce the key vocabulary.
- Model one clear example, then solve a second example together.
- Finish with an independent check and a short student explanation.