

Calculate relative frequencies from given or collected data to estimate...

calculate relative frequencies from given or collected data to estimate probabilities of events involving “and”, inclusive “or” and exclusive “or”

Learning intention

- calculate relative frequencies from given or collected data to estimate probabilities of events involving “and”, inclusive “or” and exclusive “or”

Teach and model

- understanding that relative frequencies from large data sets or long-run experiments can provide reliable measures of probability and can be used to make predictions of decisions
- using Venn diagrams or two-way tables to estimate frequencies of events involving “and”, “or” questions
- designing, testing and refining an algorithm used to determine relative frequencies from a generated data set, to estimate different probabilities

Check understanding

- Explain the main idea in calculate relative frequencies from given or collected data to estimate... 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.