

Interpret networks and network diagrams used to represent relationships in...

interpret networks and network diagrams used to represent relationships in practical situations and describe connectedness

Learning intention

- interpret networks and network diagrams used to represent relationships in practical situations and describe connectedness

Teach and model

- investigating how networks and network diagrams can be used to model authentic situations, recognising what real world quantity is represented by the nodes...
- investigating the use of graphs to represent a network, analysing connectedness; for example, investigating the “The Seven Bridges of Königsberg” problem
- investigating how polyhedra can be represented as a network using edges, vertices, interior and exterior faces; representing the number of edges, vertices...

Check understanding

- Explain the main idea in interpret networks and network diagrams used to represent relationships in... 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.