



Activity description

Students match graphs with descriptions of the real situations they represent.

Suitability and Time

Level 1 or 2 (Foundation/Higher); could also be used as a L3 lesson starter.
5 minutes or longer depending on how much time is spent in class discussion.

Resources and equipment

Set of 24 cards (12 graphs and 12 descriptions) for each student or group,
copied, laminated and cut out
Slideshow (*optional*)

Key mathematical language

Graph, title, axes, labels, variables, units, intercepts, gradient, proportion, linear, maximum, minimum.

Notes on the activity

Ask students to match each graph with a scenario.

The slideshow includes the same graphs with added titles and labels. This can be used in a class discussion about the shapes of the graphs, variables and units that should be shown on each axis, which of the graphs show direct proportion, and so on.

The resources could be used in other ways.

The slideshow could be used to show students how difficult it is to interpret graphs before they have titles and labels.

Using the graphs only, ask students to suggest possible scenarios. Discuss students' suggestions then show those in the slideshow.

Using the descriptions only, ask students to sketch a graph for each scenario then compare their graphs with those in the slideshow.

Points for discussion

How important features of the graphs such as intercepts, gradients and maximum/minimum values can provide vital clues.

Why it is important for graphs to have a title and labels with units.

Extensions

Describe a scenario to the whole class and ask each student to sketch a graph (using mini whiteboards if possible). Compare the results.

More able students could be asked to think of their own scenarios and take it in turn to describe them to the rest of the class.