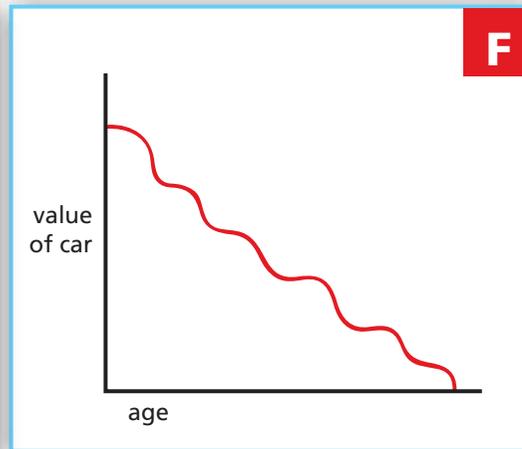
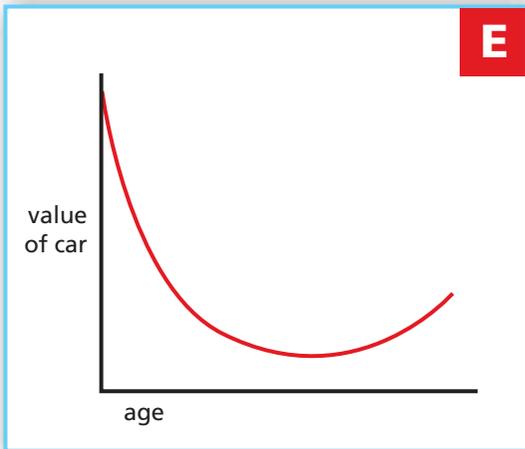
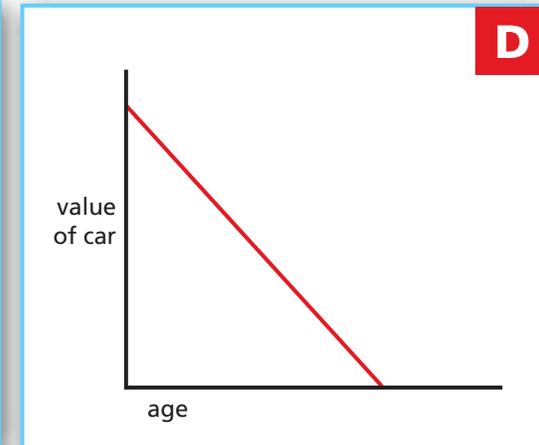
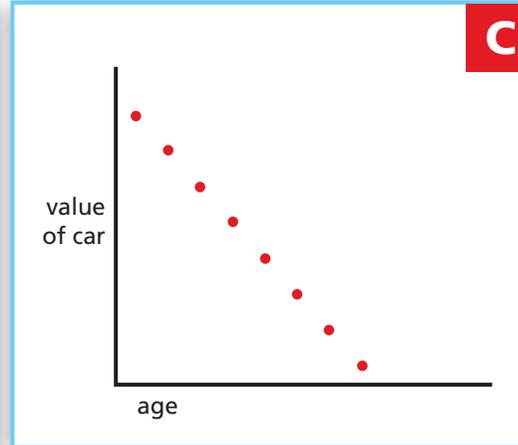
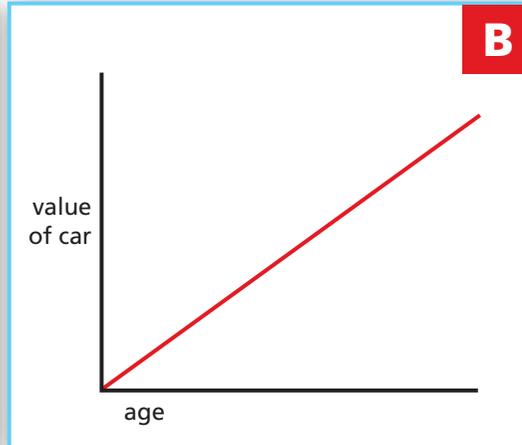
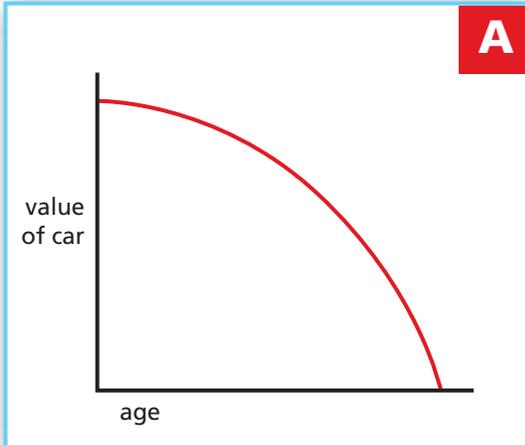


# Starter

## Graphs that make sense (1)

The value of a car varies with its age.



Which graph best represents the relationship?

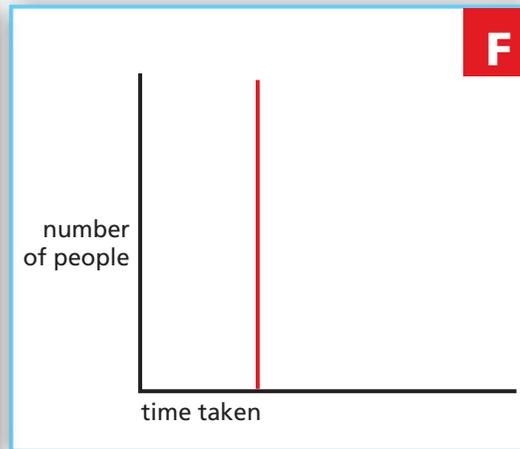
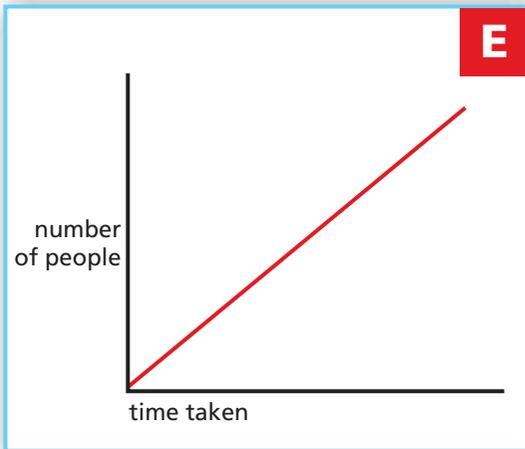
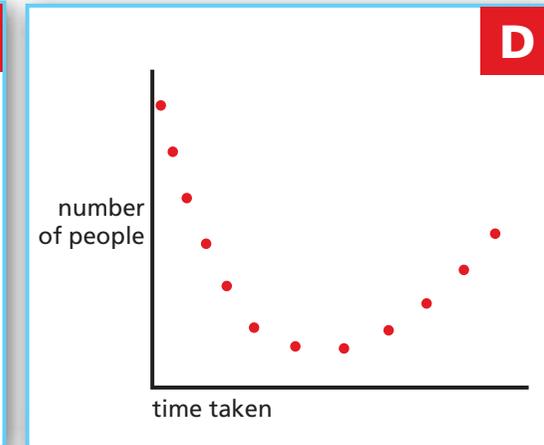
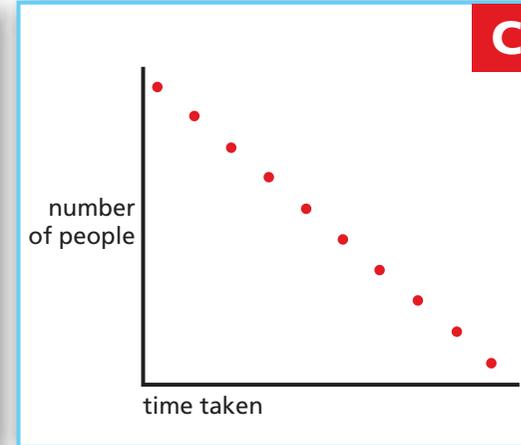
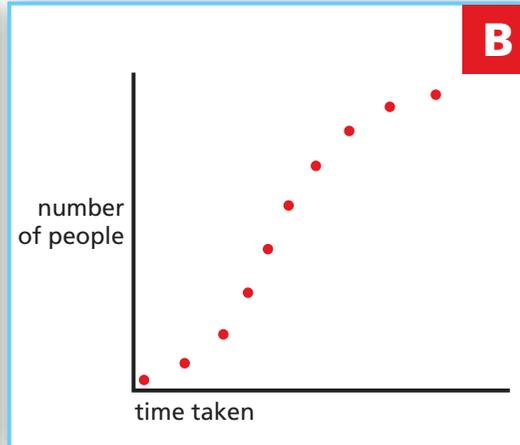
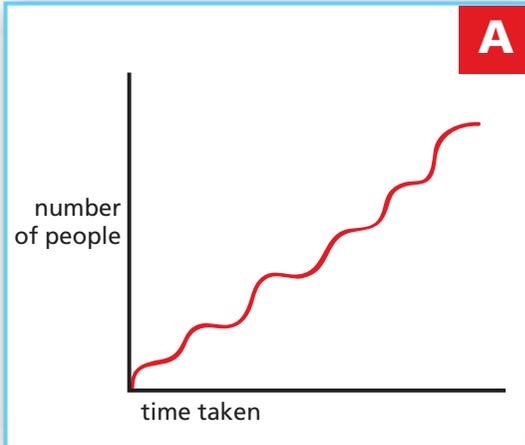


Based on an idea from *smile mathematics*.

# Starter

The time taken to put up a marquee varies with the number of people working.

## Graphs that make sense (2)



Which graph best represents the relationship?

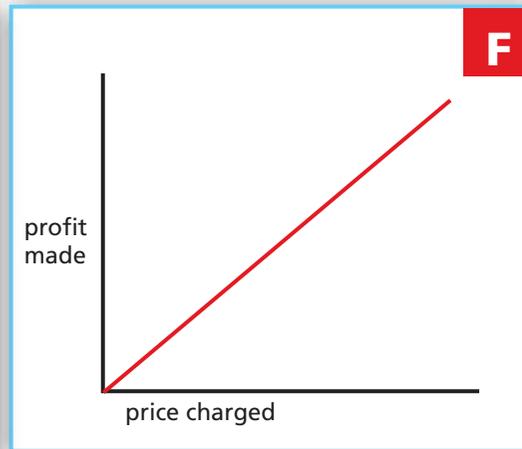
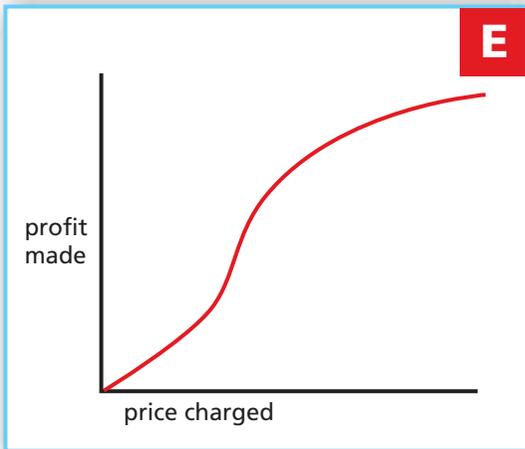
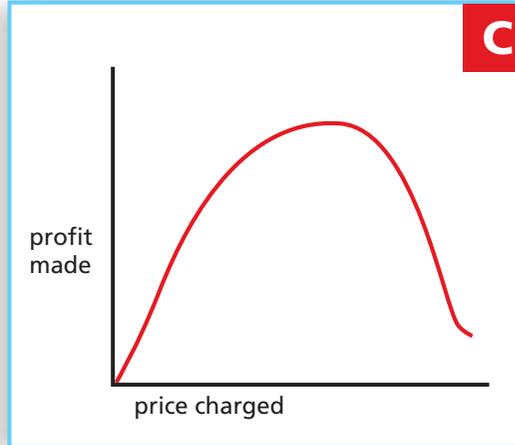
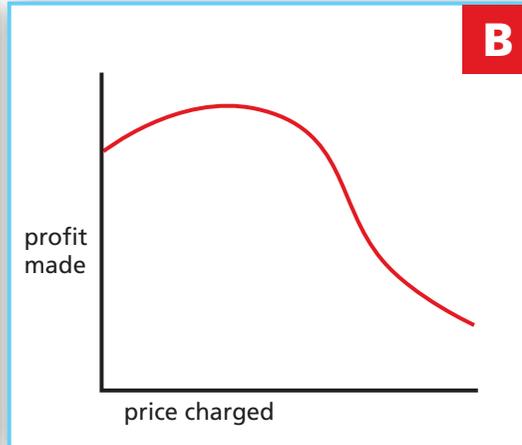
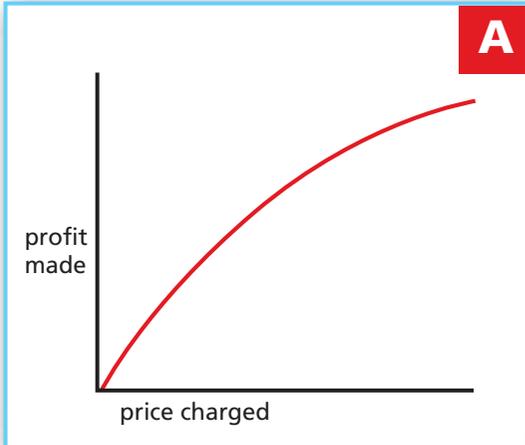


Based on an idea from *smile mathematics*.

# Starter

## Graphs that make sense (3)

The profit made by someone selling ice cream varies with the price.



Which graph best represents the relationship?



Based on an idea from *smile mathematics*.

# Graphs that make sense

These three lesson starters are designed to link thinking about careers to activities suitable for the mathematics classroom.

## Starters

Graphs that make sense (1), (2) and (3)

### Planning for teaching

Understanding graphs is a topic with which many pupils struggle. **Graphs that make sense** requires the pupils to think how variables are connected and how that in turn dictates the shape of the graph. Sometimes more than one graph may be considered plausible – pupils can be invited to justify their choices to the class. This will allow the opportunity for misconceptions to emerge – pupils can be challenged to try to support each other in overcoming these.

### Want to know more?

Contact STEM Subject Choice and Careers  
[info@careersinstem.co.uk](mailto:info@careersinstem.co.uk)

The Centre for Science Education  
Sheffield Hallam University  
City Campus, Howard Street  
Sheffield S1 1WB

**Tel:** 0114 225 4870

or for more information on careers go to Maths careers at [www.mathscareers.org.uk/](http://www.mathscareers.org.uk/)  
or Future Morph at [www.futuremorph.org/](http://www.futuremorph.org/)

A Department for Education initiative to promote subject choice and careers in Science, Technology, Engineering and Maths (STEM) delivered by the Centre for Science Education at Sheffield Hallam University and Babcock.

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