

Mathematics

Graphs of inverse proportion problems

Downloadable resource

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Try this

The speed of a journey at constant speed is inversely proportional to the time taken.

The journey takes 4 hours at 30 km/h.

Speed (km/h)	2	3	5	6	8	15	30	6
Time (h)							4	

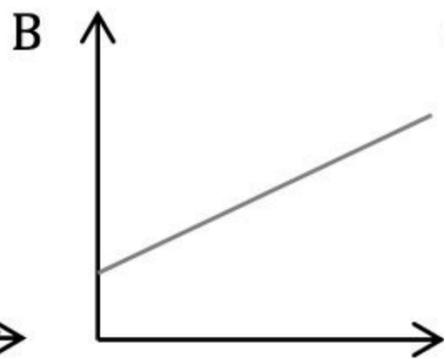
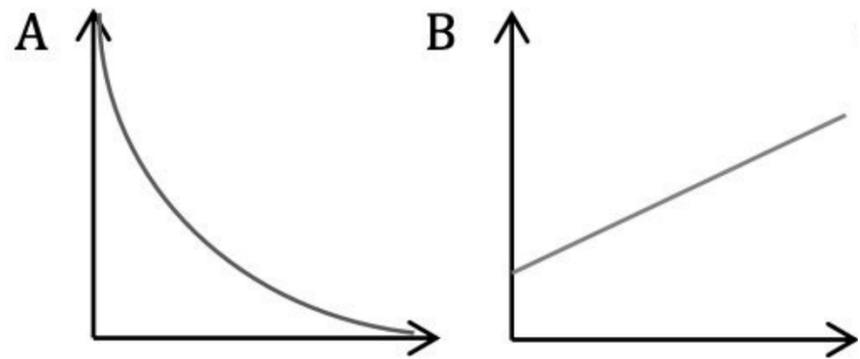
Complete the table, and then **draw a graph of speed against time** on graph paper.



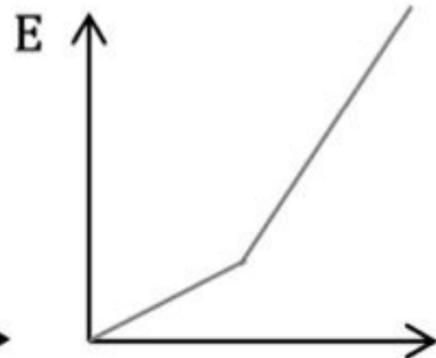
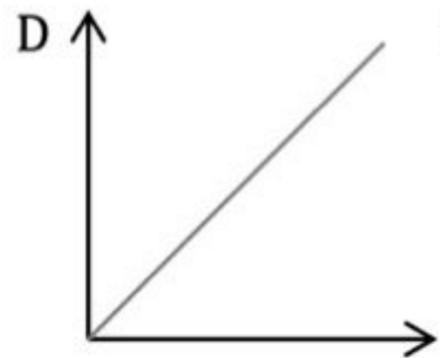
Independent task

1) The graphs below show data collected from some events.

Identify whether each of the graphs represent direct proportion, inverse proportion or neither.



Graph	Direct	Inverse	Neither
A			
B			
D			
E			



Independent task

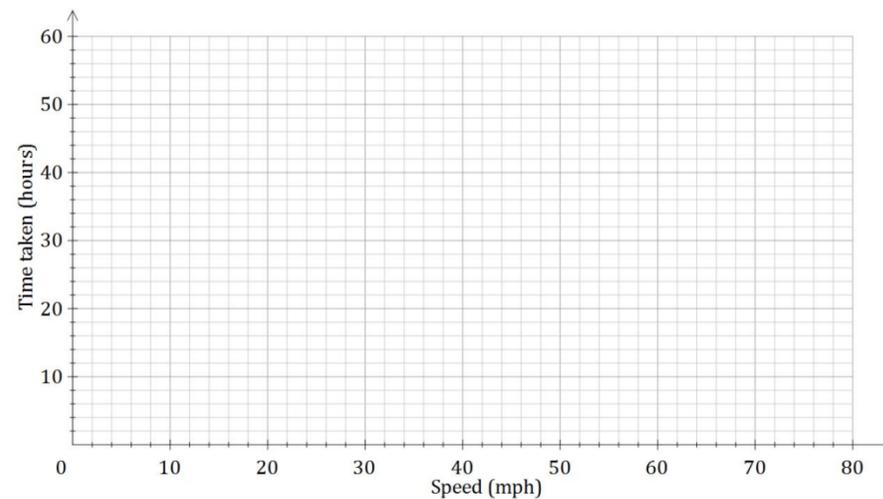
2) Bill and Ben are planning a 240-mile journey from London to Paris.

They want to know how long it will take if they travel at different speeds.

a) Complete the table below to show the time taken.

Speed (mph)	5	10	20	30	40	48	60	80
Time taken (hours)								

b) Plot this information on a graph. **Hint:**

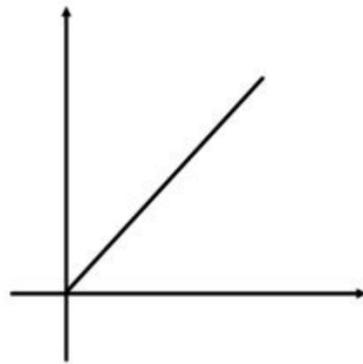


Explore

Is Antoni right?

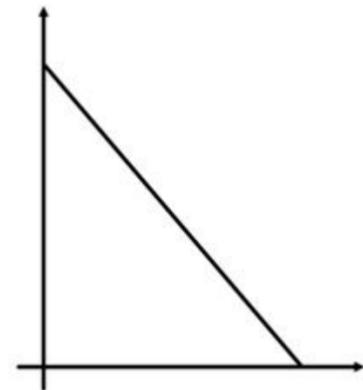
Antoni says:

If this:



shows direct proportion,

then this:



shows inverse proportion.

