

1 a A red car travels 120 km in one hour. A blue car travels 130 km in the same time. Which car has the greater average speed?

b Runner A takes 45 s to run 400 m. Runner B takes 48 s to run the same distance. Which runner has the greater average speed?

c A bus travels a distance of 100 km in 2.5 h. Calculate its average speed. Give your answer in km/h.

2 A driver can work out her average speed using the instruments in her car. The picture shows the clock and the distance meter at the beginning of a journey, and at the end. The distance meter gives the total distance travelled by the car in its lifetime, in kilometres.



a How much time has passed between the beginning and end of the journey?

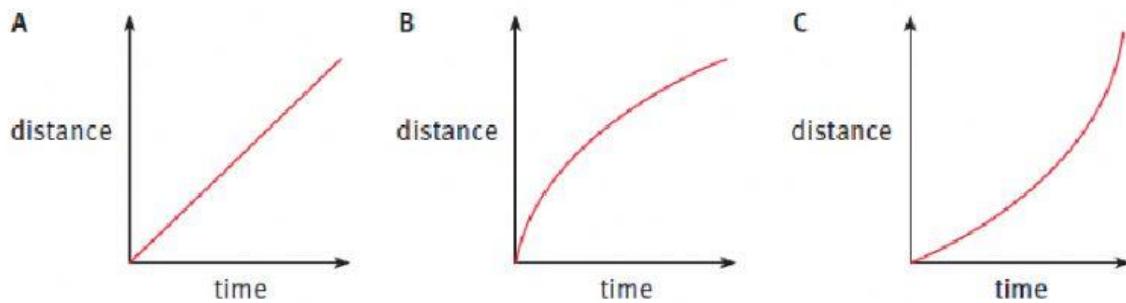
b How far has the car travelled in this time?

c Calculate the car's average speed during the journey. Show your working.

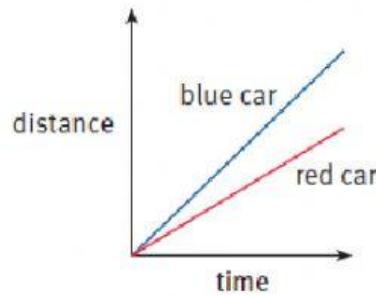
3 A train is travelling at an average speed of 150 km/h.

- How far will it travel in 2.4 hours? Show your working.
- How long will it take to travel between two stations 525 km apart? Show your working.

10.4 Here are three distance/time graphs, A–C.

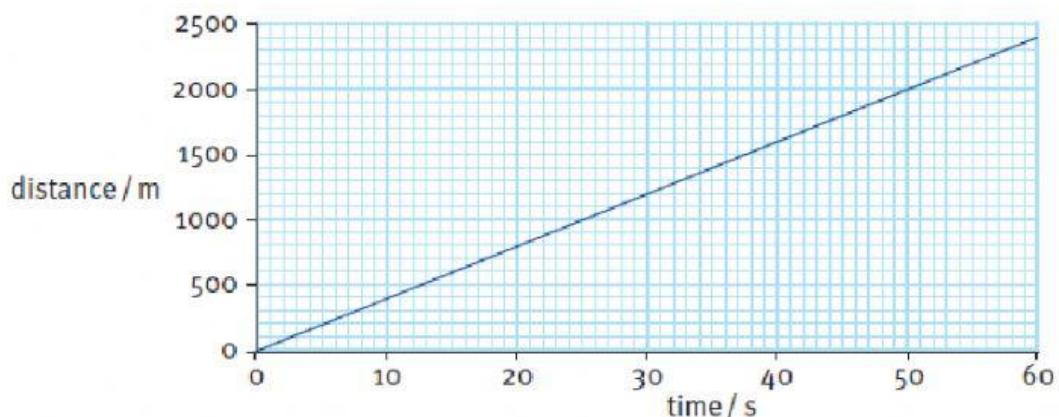


- Which graph represents the journey of a car moving at a steady speed?
- Which graph represents the journey of a car whose speed is increasing?
- The distance/time graph below represents the movement of two cars, blue and red.



Which car has the greater speed? Explain how you can tell.

5 The distance/time graph below represents part of the journey of a train. Study the graph and answer the questions that follow.



- a How far did the train travel in 50 s?
- b Calculate the train's average speed. Show your working.