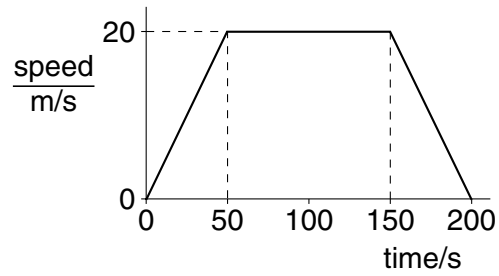


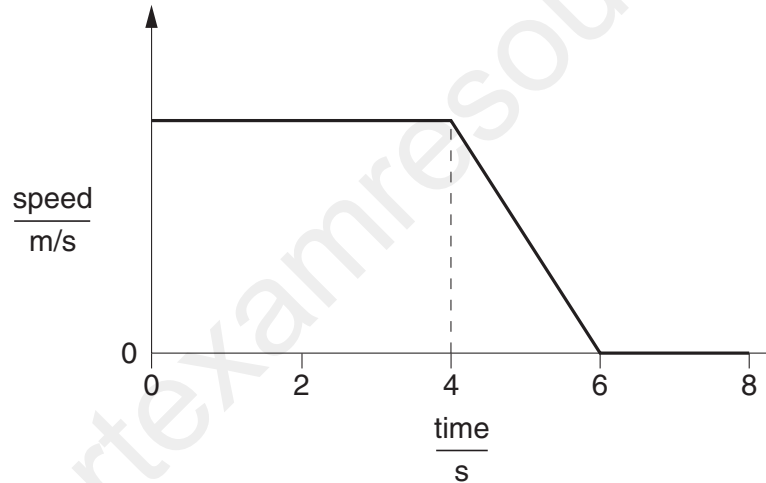
Speed-Time

- 1 The graph shows how the speed of a car changes over 200 s.



For how many seconds is the car moving at constant speed?

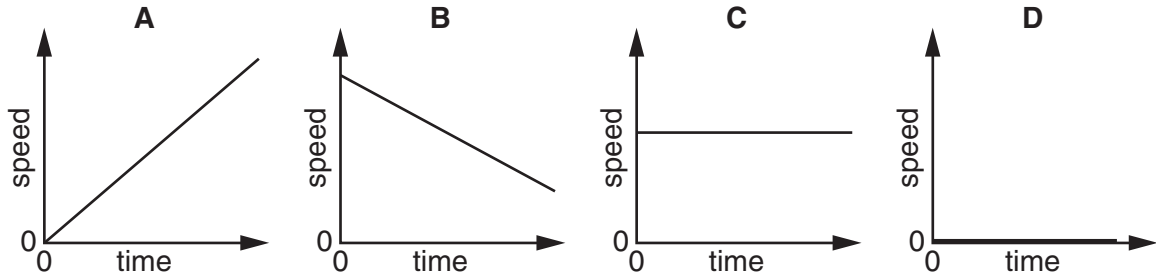
- A** 50 s **B** 100 s **C** 150 s **D** 200 s
- 2 The graph shows how the speed of an object changes with time.



For how long does the object move?

- A** 2 s **B** 4 s **C** 6 s **D** 8 s

3 Which speed-time graph represents the motion of a car moving at constant speed?



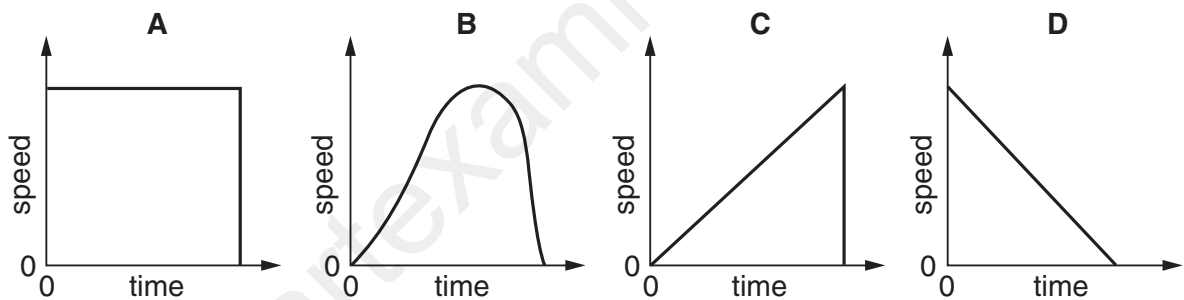
3

4 A student investigates the speed of a trolley and finds that it is 50 cm/s, and one second later that it is 150 cm/s.

What is the acceleration of the trolley?

- A 50 cm/s² B 100 cm/s² C 150 cm/s² D 200 cm/s²

5 Which graph shows the speed of a stone, dropped from the top of a building, until it hits the ground? (Assume there is no air resistance.)



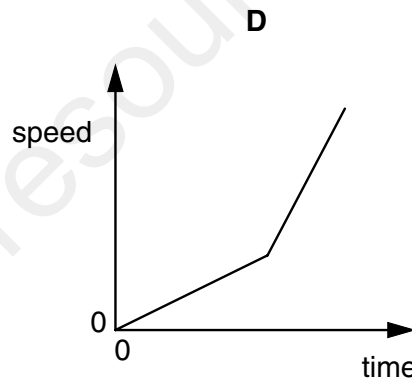
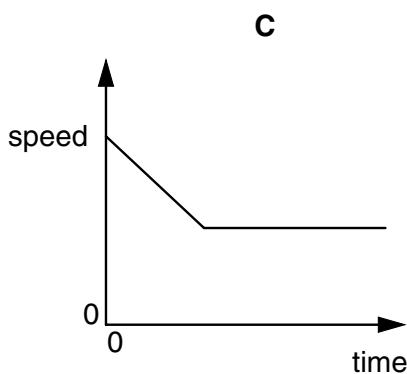
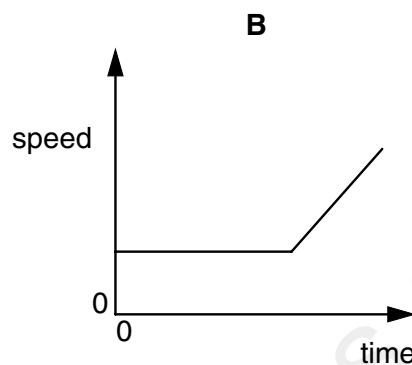
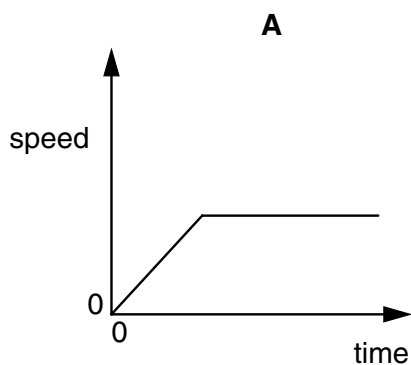
6 In a race, a car travels 60 times round a 3.6 km track. It takes 2.4 hours.

What is the average speed of the car?

- A 2.5 km/h
B 90 km/h
C 144 km/h
D 216 km/h

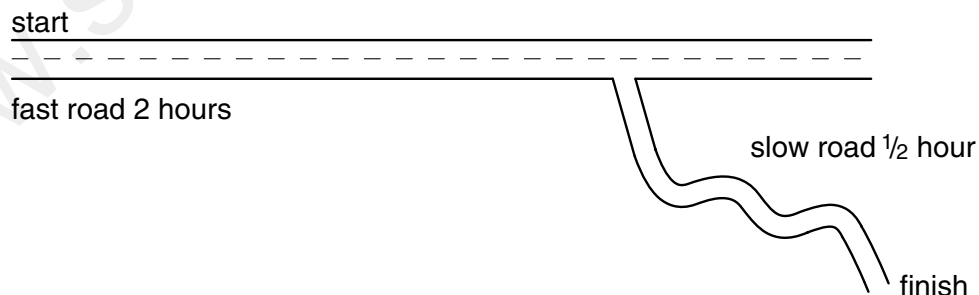
7 An object moves initially with constant speed and then with constant acceleration.

Which graph shows this motion?



8 A motorist travels 200 km.

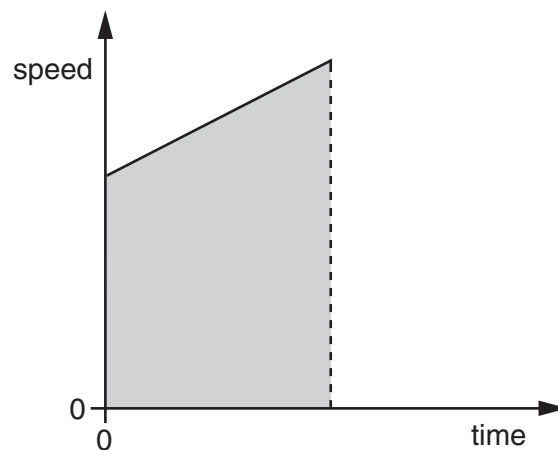
After travelling along a fast road for 2 hours, the motorist uses a slow road for the remaining $\frac{1}{2}$ hour of the journey.



What is the average speed of the car?

- A** 80 km/h **B** 100 km/h **C** 400 km/h **D** 500 km/h

- 9 The diagram shows a speed-time graph for a body moving with constant acceleration.



What is represented by the shaded area under the graph?

- A acceleration
 - B distance
 - C speed
 - D time
- 10 A tunnel has a length of 50 km. A car takes 20 min to travel between the two ends of the tunnel.

What is the average speed of the car?

- A 2.5 km/h
- B 16.6 km/h
- C 150 km/h
- D 1000 km/h