Motion

Question Paper

Course	CIE IGCSE Physics
Section	1. Motion, Forces & Energy
Topic	Motion
Difficulty	Medium

Time Allowed 10

Score /5

Percentage /100

Question 1

A car travels along a clear 10.0 km section of motorway in 6.0 minutes. It then drives through 3.0 km of roadworks in 3.0 minutes.

Which calculation will give the correct average speed for the journey?

A. $\frac{3.0}{3.0}$ = 1.00 km/min

B. $\frac{10.0}{6.0}$ = 1.67 km/min

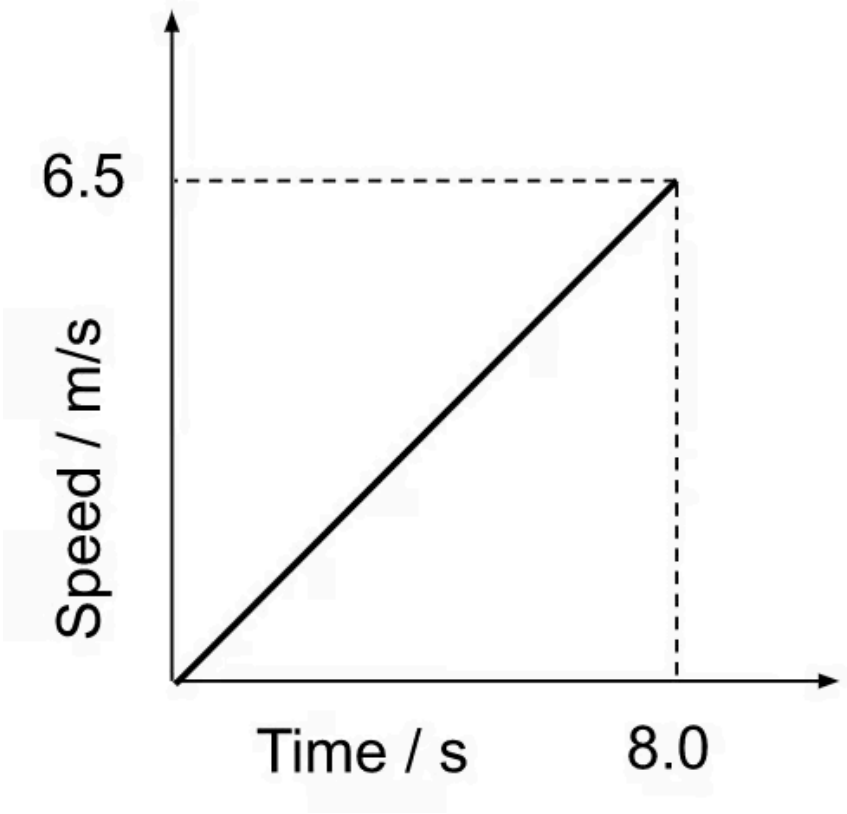
C. $1.67 + 1.00$ = 2.67 km/min

D. $\frac{13.0}{9.0}$ = 1.44 km/min

[1 mark]

Question 2

The graph shows the journey undertaken by a car.



Which equation correctly gives the distance travelled by the car?

A. $\frac{6.5 \times 8.0}{2} = 26\text{m}$

B. $6.5 \times 8.0 = 52\text{ m}$

C. $\frac{6.5}{8.0} = 0.81\text{ m}$

D. $\frac{8.0}{6.5} = 1.2\text{ m}$

[1 mark]

Question 3

During a Go Karting race, a car does 8 laps of a 300 m course. It takes 4.0 minutes to complete the race.

What was the average speed of the Go Kart?

A. 75 m/s

B. 10 m/s

C. 1.25 m/s

D. 600 m/s

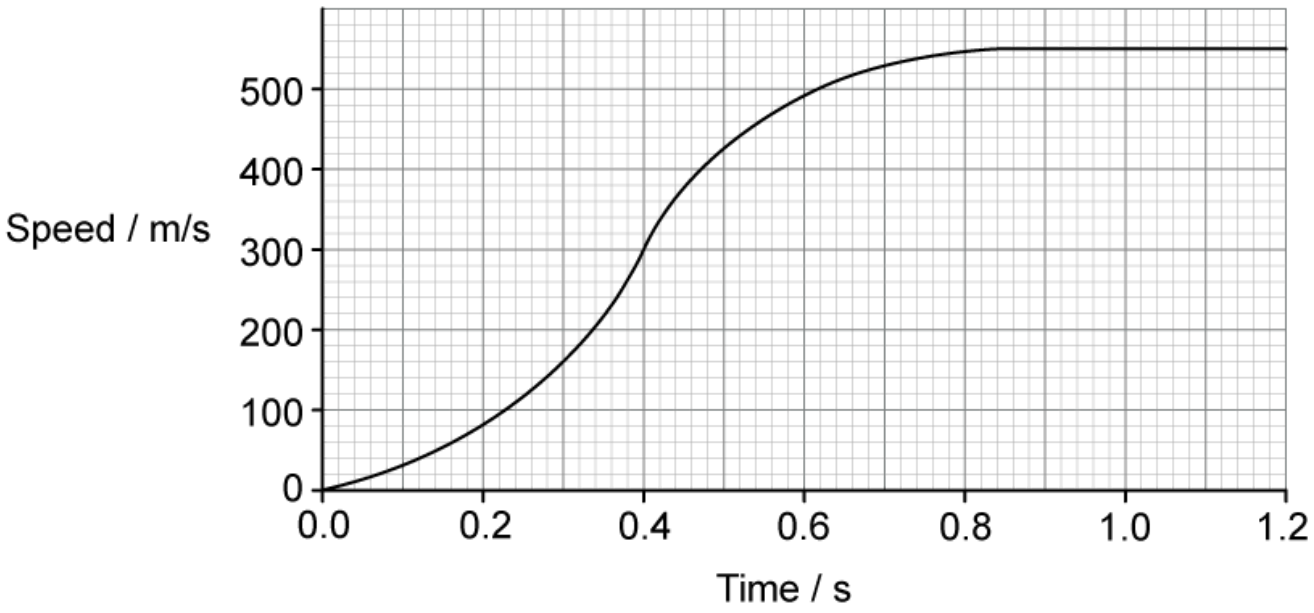
[1 mark]

Question 4

Extended tier only

A charged particle is accelerated when passing through an electric field.

What is the acceleration of the particle at 0.4 s?



A. $2.0 \times 10^{3}\ m/s^{2}$

B. $2.5\ m/s^{2}$

C. $2.5 \times 10^{-3}\ m/s^{2}$

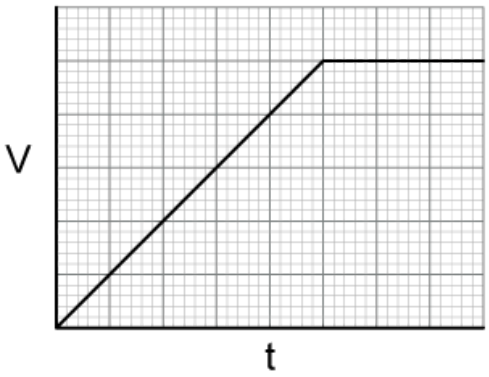
D. $2.0 \times 10^{-3}\ m/s^{2}$

[1 mark]

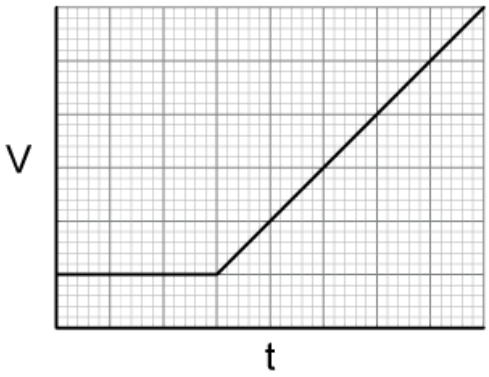
Question 5

Four speed-time graphs have axes with the same scales. Each large square has a height of 1 m/s and width of 1 s.

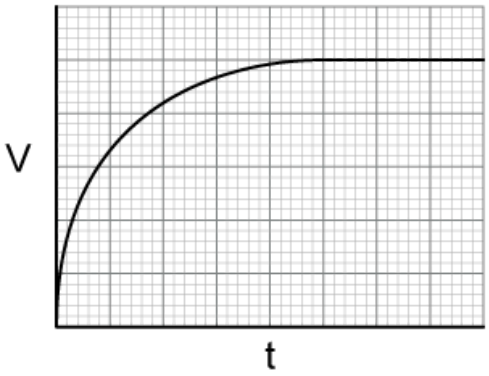
A



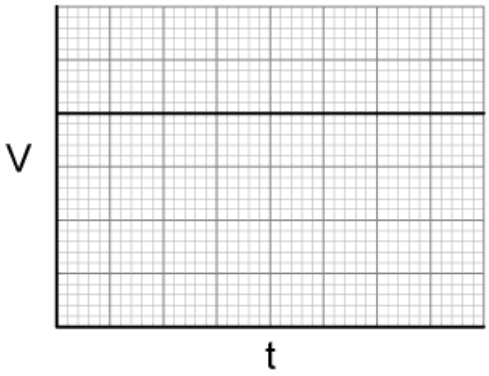
B



C



D



Which graph shows the greatest distance covered?

[1 mark]