



Oxford Cambridge and RSA

GCSE Physics B (Twenty First Century Science)

J259/01 Breadth in Physics (Foundation Tier)

Question Set 3

Multiple Choice Questions

1 Alex is planning his journey to school.

(a) Alex usually walks to school.

Which is the most likely speed at which Alex walks?

Put a (ring) around the correct answer.

0.12 m/s

1.2 m/s

12 m/s

120 m/s

[1]

(b) He could travel by car.

A car travels at 36 km/h (kilometres per hour).

Which is the correct calculation to work out this speed in m/s (metres per second)?

Put a (ring) around the correct answer.

$$\frac{36 \times 60}{1000}$$

$$\frac{36 \times 1000}{60}$$

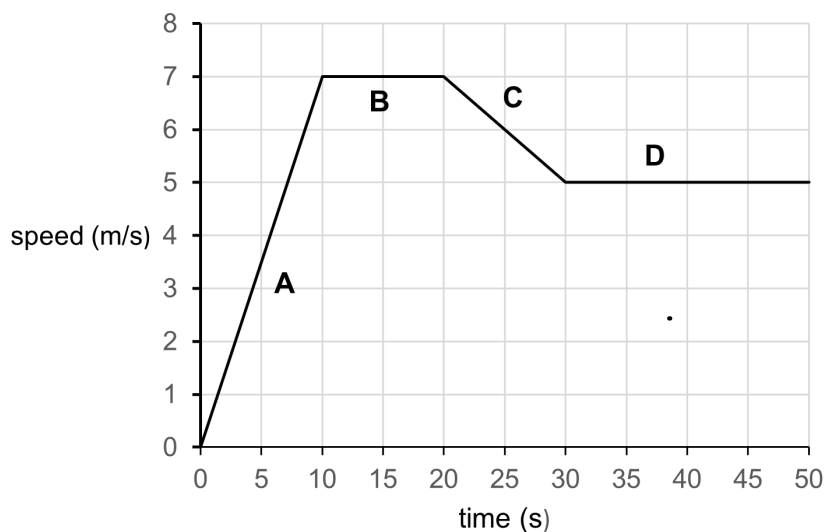
$$\frac{36 \times 3600}{1000}$$

$$\frac{36 \times 1000}{3600}$$

[1]

(c) In the end Alex decides to cycle to school.

The graph shows the first part of this journey.



(i) Put a tick (✓) in the **one** correct box in each row.

	A	B	C	D
In which section does Alex have an average speed of 3.5 m/s?	✓			
In which section does Alex slow down?			✓	

[2]

(ii) Calculate the acceleration in section **A** of the journey.

Use the equation: acceleration = change in speed ÷ time.

$$a = \frac{7-0}{10} = 0.7 \text{ m/s}^2$$

Acceleration =0.7..... m/s² [3]

Total Marks for Question Set 3: 7

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