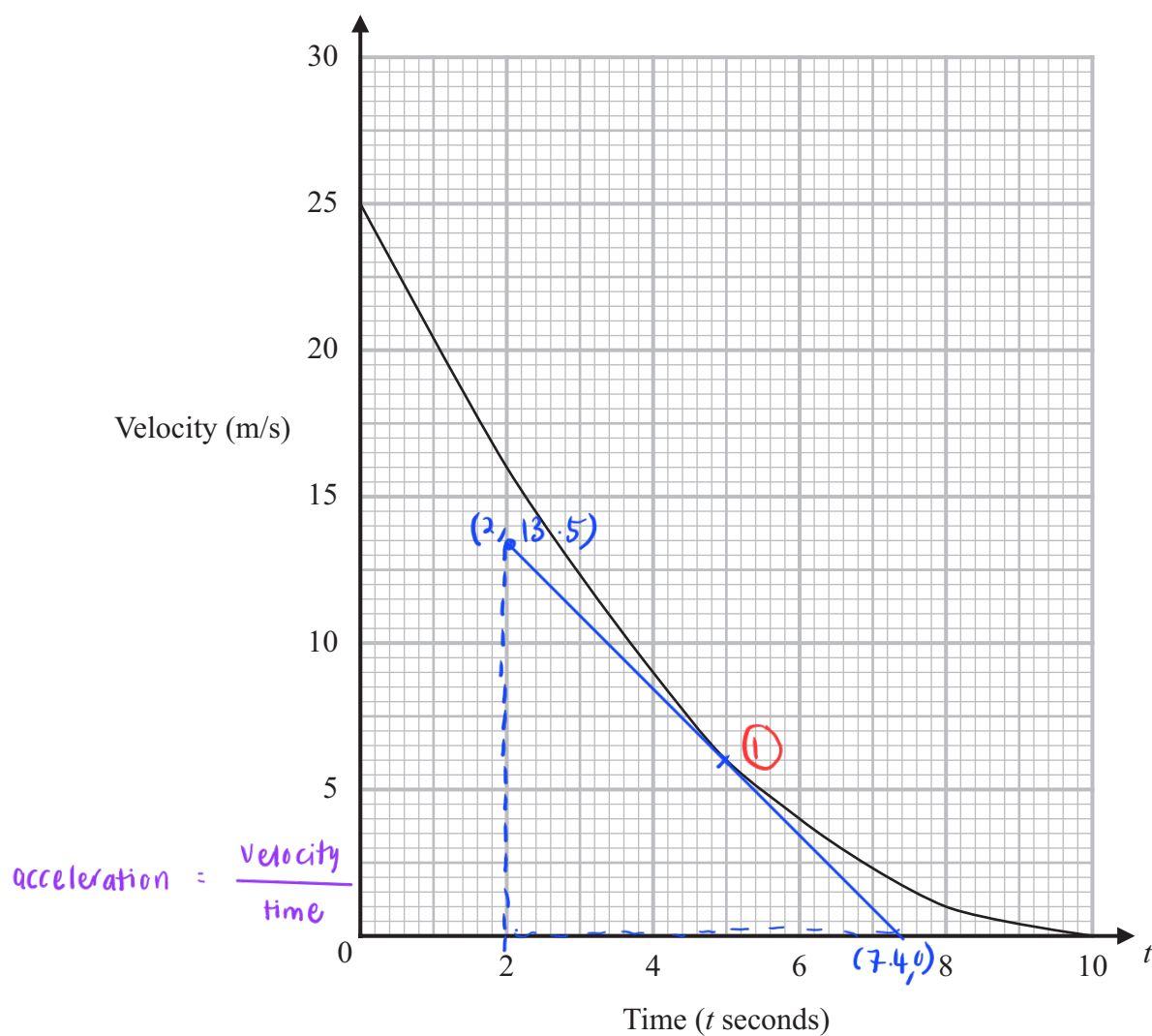


- 1 The graph shows the velocity of a car, in metres per second, t seconds after it starts to slow down.



- (b) Work out an estimate for the distance the car travels in the first 6 seconds after it starts to slow down.

Use 3 strips of equal width.

distance = area under the graph

$$\text{from } t=0 \text{ to } t=2 : \frac{1}{2} \times 2 \times (25+16) = 41 \text{ m} \quad (1)$$

$$\text{from } t=2 \text{ to } t=4 : \frac{1}{2} \times 2 \times (16+9) = 25 \text{ m}$$

$$\text{from } t=4 \text{ to } t=6 : \frac{1}{2} \times 2 \times (9+4) = 13 \text{ m}$$

79

..... m

(3)

$$\text{Total distance travelled} = (41 + 25 + 13) = 79 \text{ m} \quad (1) \quad (1)$$

(Total for Question 1 is 3 marks)