

4.3 Answers

4.3.1 Solutions (Introduction)

$$\begin{aligned}\text{Area Rectangle} &= \text{Base} \times \text{Height} \\ &= 40 \times 80 \\ &= 320 \text{ m}\end{aligned}$$

On a Speed -Time graph, the Area Under The Graph represents Distance

4.3.2 Solutions (4.2 Exercise)

Answer 1

300 m

Answer 2

440 m

Answer 3

165 m

Answer 4

(i) C

(ii) A

(iii) B

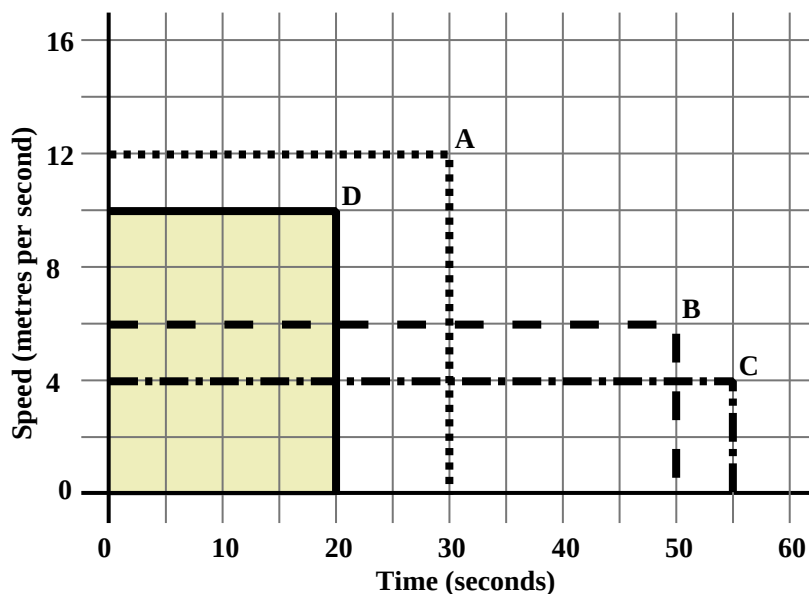
(iv) 360 m

(v) 300 m

(vi) 220 m

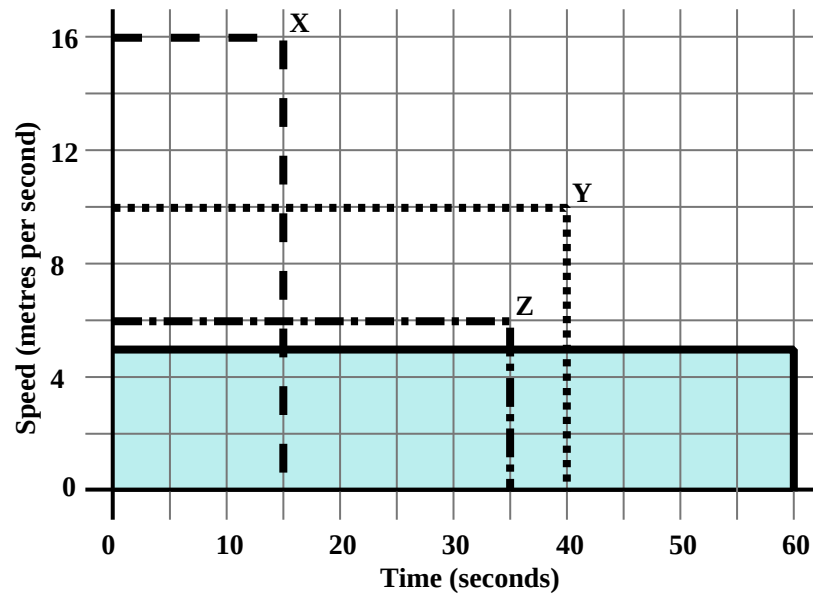
(vii) A

(viii)



Answer 5

- (i) Y
- (ii) X
- (iii) Y
- (iv) 240 m
- (v) 400 m
- (vi) 210 m
- (vii) Y
- (viii)



Answer 6

- (i) (a) 30 (b) 43
- (c) 7 (d) 22
- (ii) (a) 8
- (b) 400 m
- (c) 400 m
- (d) The Answers to part (b) is the same as to part (c)
This illustrates that;
On a Speed -Time graph, Area Under Graph represents Distance

Answer 7

- (i) 14 ms^{-1}
- (ii) 20 s
- (iii) 140 m
- (iv)

$$\begin{aligned}
 D &= A_v S \times T \\
 &= \left(\frac{14 + 0}{2} \right) \times 20 \\
 &= 140 \text{ m}
 \end{aligned}$$

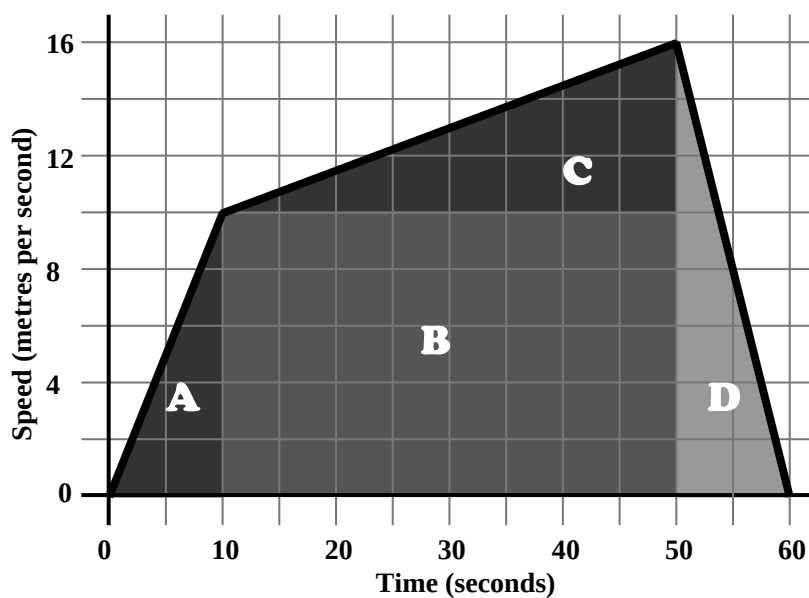
Answer 8

- (i) 60 m
- (ii) 240 m
- (iii) 180 m
- (iv) 480 m

Answer 9

- (i) 120 m
- (ii) 560 m
- (iii) 80 m
- (iv) 760 m

Answer 10



With the regions labelled as shown above...

Area A represents 50 m

Area B represents 400 m

Area C represents 120 m

Area D represents 80 m

Giving a total distance of 650 m