

5.4 Answers

5.4.1 Solutions to Introductory Examples

1st Example

$$\begin{aligned}\Delta S &= 11 - 3 \\ &= 8 \text{ ms}^{-1}\end{aligned}$$

2nd Example

$$\begin{aligned}m &= \frac{\Delta y}{\Delta x} \\ &= \frac{4}{12} = \frac{1}{3}\end{aligned}$$

5.4.2 Solutions to the Exercise (5.3 Exercise)

Answer 1

$$\Delta S = 24 \text{ ms}^{-1}$$

Answer 2

$$\Delta W = 3.9 \text{ kg}$$

Answer 3

$$\Delta T = 25 \text{ minutes}$$

Answer 4

$$- 5.2 \text{ ms}^{-1}$$

Answer 5

$$102 \text{ cm}$$

Answer 6

$$3$$

Answer 7

$$(i) \quad 0.25$$

$$(ii) \quad 0.1$$

$$(iii) \quad 3$$

Answer 8

$$(i) \quad \Delta x = 8$$

$$(ii) \quad \Delta y = 24$$

$$(iii) \quad m = 3$$

Answer 9

$$(i) \quad \Delta x = 3$$

$$(ii) \quad \Delta y = 15 \Rightarrow m = 5$$

Answer 10

$$(i) \quad \Delta y = 36$$

$$(ii) \quad \Delta x = 9 \Rightarrow m = 4$$

$$\text{Answer 11} \quad \Delta x = 7 \quad \Delta y = 14 \Rightarrow m = 2$$

$$\text{Answer 12} \quad \Delta x = 5 \quad \Delta y = 20 \Rightarrow m = 4$$

$$\text{Answer 13} \quad \Delta x = 6 \quad \Delta y = 3 \Rightarrow m = 0.5$$

$$\text{Answer 14} \quad \Delta x = 2 \quad \Delta y = 10 \Rightarrow m = 5$$

$$\text{Answer 15} \quad \Delta x = 10 \quad \Delta y = 6 \Rightarrow m = 0.6$$