

**Exercise 7.1**

answers on p. 428

2. From 10 00 to 12 00, the rise in temperature is  $4^{\circ}\text{C}$  and from 15 00 to 17 00, the fall in temperature is  $6^{\circ}\text{C}$ . What is the average rate of

- (a) the rise in temperature per hour,  
(b) the fall in temperature per hour?

$$2^{\circ}\text{C/h}$$
$$3^{\circ}\text{C/h}$$

4. If 150 g of fertiliser is needed to dress an area of  $6\text{ m}^2$ , express this rate in

(a)  $\text{g/m}^2$ ,

(b)  $\text{kg/m}^2$ .

$$25\text{ g/m}^2$$

$$0.025\text{ kg/m}^2$$

6. A clock is slow by 300 s in 1 week. How many seconds will it lose in 14 days?

$$600\text{ s}$$

8. A motor cyclist took  $1\frac{1}{2}\text{ h}$  to travel 143 km from town  $P$  to town  $Q$ . He then took another  $1\frac{1}{2}\text{ h}$  to reach his destination, town  $R$ , which was 97 km from town  $Q$ . Find his average speed for the whole journey.

$$80\text{ km/h}$$

10. A motorist travelled from town  $X$  to town  $Y$  at an average speed of 90 km/h. After travelling  $\frac{1}{3}$  of the journey in 45 min, he continued to travel another 120 km to reach town  $Y$ . Find his average speed for the second part of the journey.

$$96\text{ km/h}$$

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