

Compound Units Ex 22.15 Continued

8) 4 m of fabric costs £8.40

$$\text{Price per metre} = \frac{£8.40}{4} = £2.10$$

9) Paid £478 per week for 40 hours

$$\text{Hourly rate} = \frac{£478}{40} = £11.95$$

10) a) 20 litres in 8 s

$$= \frac{20}{8} = 2.5 \text{ litres/s}$$

b) 48 litres in 30 s

$$= \frac{48}{30} = 1.6 \text{ litres/s}$$

11) Rate 2 litres/s for 10 min
for $10 \times 60 = 600$ s

$$\text{Vol} = 2 \times 600 = 1200 \text{ litres}$$

12) 18 units used in 7.5 hrs

a) Consumption $\frac{18}{7.5} = 2.4 \text{ units/hr}$

$$\begin{aligned} \text{b) in 24 hrs use } & 2.4 \times 24 \\ & = 57.6 \text{ units} \end{aligned}$$

$$13) \quad 8 \text{ litres for } 100 \text{ km}$$

$$\text{a) } \quad 1 \text{ litre for } \frac{100}{8} = 12.5 \text{ km}$$

$$40 \text{ litres for } 40 \times 12.5 = 500 \text{ km}$$

$$\text{b) } \quad 250 \text{ miles} = 250 \times \frac{8}{5} = 400 \text{ km}$$

$$400 \div 12.5 = 32 \text{ litres}$$

$$\text{c) } \quad 12.5 \text{ km/litre}$$

$$14) \quad £50 = 75 \$$$

$$\text{a) } \quad £1 = \frac{75}{50} = 1.50 \$$$

$$\begin{aligned} \text{b) } \quad £125 &= 1.50 \times 125 \$ \\ &= 187.50 \$ \end{aligned}$$

$$\text{c) } \quad 120 \$ = \frac{120}{1.5} = £80$$

Detention Questions

Solve

$$\begin{aligned} 1) \quad 2x + 3y &= 13 \\ 5x + 6y &= 31 \end{aligned}$$

$$\begin{aligned} 4) \quad 5x + 2y &= 18 \\ 7x + 4y &= 30 \end{aligned}$$

$$\begin{aligned} 2) \quad 4x - 2y &= 12 \\ 5x - 4y &= 12 \end{aligned}$$

$$\begin{aligned} 5) \quad 3x + 10y &= 53 \\ 5x - 2y &= -5 \end{aligned}$$

$$\begin{aligned} 3) \quad 7x - 5y &= 6 \\ 3x + 5y &= 24 \end{aligned}$$