

## ES7 - N5 Applications of Maths (Numeracy) Direct Proportion

Worked Solutions Courtesy of Mr R. Milton

①

$$\frac{c}{3} \rightarrow \underline{£} 10.20$$

$$1 \rightarrow \frac{10.20}{3} = 3.40$$

$$4 \rightarrow 3.40 \times 4 = \underline{£13.60} \checkmark$$

②

$$\frac{T}{5} \rightarrow \underline{W} 265$$

$$1 \rightarrow \frac{265}{5} = 53$$

$$13 \rightarrow 53 \times 13 = \underline{689 \text{ WORDS}} \checkmark$$

③

$$\frac{\text{km}}{5} \rightarrow \underline{T} 22$$

$$1 \rightarrow \frac{22}{5} = 4.4 \quad \nearrow \begin{matrix} 0.2 \times 60 \\ = 12 \text{ SEC} \end{matrix}$$

$$8 \rightarrow 4.4 \times 8 = 35.2 \text{ MIN}$$

$$= \underline{35 \text{ MIN } 12 \text{ SEC}} \checkmark$$

④

kg

COST (£)

$$7 \longrightarrow 19.95$$

$$1 \longrightarrow \frac{19.95}{7} = 2.85$$

$$20 \longrightarrow 2.85 \times 20$$

$$= \underline{\underline{£57}} \quad \checkmark$$

⑤

LITRES

AREA (m<sup>2</sup>)

$$8 \longrightarrow 72$$

$$1 \longrightarrow \frac{72}{8} = 9$$

$$2.5 \longrightarrow 9 \times 2.5 = \underline{\underline{22.5 \text{ m}^2}}$$

⑥

ml

£

$$500 \longrightarrow 0.85$$

$$1 \longrightarrow \frac{0.85}{500} = 0.0017$$

$$2000 \text{ ml} \longrightarrow 0.0017 \times 2000$$

$$= \underline{\underline{£3.40}}$$

NO, IT SHOULD BE £3.40 NOT £3.50

⑦

T (min)

D (km)

90 →

27

1 →

$\frac{27}{90} = 0.3$

120 →

$0.3 \times 120$

2 hours  
= 120 min

= 36 km ✓

⑧

g

COST (£)

~~300~~ →

4.62

1 →

$\frac{4.62}{300} = 0.0154$

1000g →

$0.0154 \times 1000$

1 kg

= £15.40 ✓

9

$$\begin{array}{l} \underline{c} \\ 425 \end{array} \rightarrow \begin{array}{l} \underline{g} \\ 340 \end{array}$$
$$1 \rightarrow \frac{340}{425} = 0.8$$

$$600 \rightarrow 0.8 \times 600 = \underline{480g}$$

10

ASDA

$$\begin{array}{l} \underline{g} \\ 2000 \end{array} \rightarrow \begin{array}{l} \underline{\text{PENNY}} \\ 720 \end{array}$$
$$1 \rightarrow \frac{720}{2000} = 0.36p$$

$$100g \rightarrow 0.36 \times 100 = \underline{36p}$$

MORRISONS

$$\begin{array}{l} \underline{g} \\ 750 \end{array} \rightarrow \begin{array}{l} \underline{\text{PENNY}} \\ 255 \end{array}$$
$$1 \rightarrow \frac{255}{750} = 0.34p$$

$$100g \rightarrow 0.34 \times 100 = \underline{34p}$$

MORRISONS BOTTLE 34p/100g < 36p/100g

ACQ.

J	G	S	H
12 ↘	9 ↘	5 ↗	13 ↗
3564	2673	1485	3861

x297

$$\frac{1485}{5} = 297$$

eg EVERY YEAR employees  
GET £297

$$\begin{aligned} \text{Company} &= 3564 + 2673 \\ \text{PAID OUT} &+ 1485 + 3861 \end{aligned}$$

$$= \underline{\underline{£11,583}} \checkmark$$