

M1.(a) $x + y = 180$

oe

$$y = 180 - x$$

$$\text{or } x = 180 - y$$

$$\text{or } 2x + 2y = 360$$

B1

(b) $y = 1.5x$

oe

$$2y = 3x$$

$$\text{or } y = \frac{3}{2}x$$

$$\text{or } x = \frac{2}{3}y$$

$$\text{or } \frac{x}{y} = \frac{2}{3}$$

$$\text{or } \frac{y}{x} = \frac{3}{2}$$

B1

[2]

M2.(a) 4×0.5 or 4×50 or 200(p) or (£)2

M1

$$6 + 4 \times 0.5$$
 or 8 or (£)6 + (£)2

$$\text{or } (\text{£})6 : (\text{£})2$$

M1dep

$$8 \div 5 (= 1.6)$$

A1

Alternative method 1

$$\text{Juice} = \frac{1}{5} \text{ and Lemonade} = \frac{4}{5}$$

200ml of juice and 800ml of lemonade

M1

$$\frac{1}{5} \times 6 \text{ and } \frac{4}{5} \times 0.5$$

Allow mixture of units

M1dep

$$1.2 + 0.4 (= 1.6) \text{ or } 120 + 40 (= 160)$$

Allow mixture of units eg 1.2 + 40 (= 1.60)

A1

Alternative method 2

$$\frac{1}{5} \times 6 = 1.2 \text{ or } \frac{1}{5} \times 6(00) = 120$$

or

$$\frac{4}{5} \times 0.5 = 0.4 \text{ or } \frac{4}{5} \times 0.5 \text{ or } 50 = 40$$

oe

*Must see calculation**Allow mixture of units*

M1

$$\frac{1}{5} \times 6 = 1.2 \text{ or } \frac{1}{5} \times 6(00) = 120$$

and

$$\frac{4}{5} \times 0.5 = 0.4 \text{ or } \frac{4}{5} \times 0.5 \text{ or } 50 = 40$$

oe

*Must see calculation**Allow mixture of units*

M1dep

$$1.2 + 0.4 (= 1.6) \text{ or } 120 + 40 (= 160)$$

Allow mixture of units eg $1.2 + 40 (= 1.60)$

A1

(b) 40 seen or $2 \div 1.6$ or $200 \div 160$
 0.4 or 1.25

M1

25% or 20%

20% is allowed as this is defined a 'profit margin'

A1

[5]

M3. (Billie = £)8

$$\left(\frac{2}{3}\right)8$$

B1

their $8 \div 2 \times 3 (= 12)$
 oe

M1

their $12 \div 4 \times 5$
 oe

M1

15

A1

[4]

M4. (a) $\frac{392}{7} \times 2$
 oe

M1

112

SC1 504

A1

(b) $\frac{8}{11}$ or 0.72... or 0.73
oe or 72(...)% or 73%

B1

[3]