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

oe

$y = 180 - x$

or $x = 180 - y$

or $2x + 2y = 360$

B1

(b) $y = 1.5x$

oe

$2y = 3x$

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

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

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

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 × 0.5 or 8 or (£)6 + (£)2

or (£)6 : (£)2

M1dep

8 ÷ 5 (= 1.6)

A1

Alternative method 1

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

200ml of juice and 800ml of lemonade

M1

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

Allow mixture of units

M1dep

1.2 + 0.4 (= 1.6) or 120 + 40 (= 160)

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

A1

Alternative method 2

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

or

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

oe

Must see calculation

Allow mixture of units

M1

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

and

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

oe

Must see calculation

Allow mixture of units

M1dep

1.2 + 0.4 (= 1.6) or 120 + 40 (= 160)

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

A1

(b) 40 seen or 2 ÷ 1.6 or 200 ÷ 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 ÷ 2 × 3 (= 12)

oe

M1

their 12 ÷ 4 × 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]