

**M1.**

7 : 5

*B1 Any ratio equivalent to 7 : 5  
or 5 : 7  
or any ratio correctly simplified*

**B2****[2]****M2.**

(a) 25(%) : 75(%)

or  $\frac{1}{4} : \frac{3}{4}$ *oe***M1**

1 : 3

*SC1 3 : 1***A1**

(b) 19.5 ÷ 3

or 26 ÷ 4

or 6.5

*oe**19.5 ÷ 75 × 25***M1**

6.50

*Correct money notation***A1****Additional Guidance**

Condone 6.50p on answer line provided £ sign is not crossed out

**M1A1****[4]****M3.** y intercepts at 1 and - 1

oe eg 1 and (-) 1 marked on diagram

B1

(y =) 7 (at B) and (y =) - 4 (at D)

oe eg 7 and (-) 4 on diagram or in working

B1

1 - - 1 (= 2) or 7 - - 4 (= 11)

Using their coordinates

M1

2 : 11 oe

A1

[4]

**M4.(a)** Janet **and** reason eg

She has (4) more tickets

She has 5 times the chance

oe correct comparative statement

B1

(b)  $5 \div 300$  seen or  $\frac{5}{300}$  seen

oe May be implied by 5 out of 300, 5 in 300, 1 out of 60, 1 in 60 etc

Ratio is M0

M1

$\frac{1}{60}$

Must be a fraction

A1

- (c)  $120 \div 6$  or  $6 \times 20 = 120$   
 oe *Builds up to 100 : 20*

M1

20

SC1 100

A1

[5]

**M5.**  $3 + 4 + 5 (= 12)$

*3 and 4 must be used*

B1

$48 \div \text{their } 12 (= 4)$

*'Their 12' means their addition of  $3 + 4 + 5$  or their total if they think that a pentagon does not have 5 sides*

M1

20

*ft on B0*

*Accept 12 : 16 : 20*

A1ft

[3]

**M6.**

- (a)  $\frac{36}{12} \times (\times 50)$  or  $3 (\times 50)$

M1

150

*SC1 for use of a different item.*

A1

- (b)  $200 \rightarrow 24$   
 or

$$50 \rightarrow 6$$

M1

$$12 + 12 + 6$$

M1

$$30$$

A1

**Alternative 1**

$$250 \div 100 (= 2.5)$$

M1

$$\text{Their } 2.5 \times 12$$

M1

$$30$$

A1

**Alternative 2**

$$100 \div 12 (= 8.3 \dots)$$

M1

$$250 \div \text{their } 8.3 \dots$$

M1

$$30$$

A1

(c)  $24 \div 3 (= 8)$  or  $24 \times 2 (= 48)$

M1

Their  $8 \times 2 (= 16)$  or  
their  $48 \div 3 (= 16)$

M2 for diagram split  $\frac{1}{3}$  and  $\frac{2}{3}$  in some way, circled,  
shaded, etc

M1

$$(24 - \text{their } 16) \div 2$$

or half of their remaining biscuits shaded

M1

$$4$$

A1

**Alternative**

$$1 - \frac{1}{3}$$

M1

Their  $\frac{2}{3} \times 24 (= 8)$

M1

Their  $8 \div 2$

M1

4

A1

[9]

M7.(a)  $\frac{152}{200} \times 100$  or  $\frac{48}{200} \times 100$  or  $\frac{76}{100}$  or  $\frac{24}{100}$   
*76 or 24 seen or implied*

M1

76 and 24 seen or implied

A1

Bar drawn in correct position and shaded (Shop at the bottom) with correct height, division and width

$\frac{1}{2}$  small square  
 ft their 76 or 24 but bar must total 100%  
 SC2 bar wrong way round

B1ft

(b) 1 : 4

B1 for 20 : 80 oe  
 B1 a : b with its correct simplest form  
 SC1 4 : 1

B2

[5]

**M8.(a)**  $\frac{152}{200} \times 100$  or  $\frac{48}{200} \times 100$   
*76 or 24 seen or implied*

or  $\frac{76}{100}$  or  $\frac{24}{100}$

**M1**

76 and 24 seen or implied

**A1**

Bar drawn in correct position and shaded (Shop at the bottom) with correct height, division and width

$\pm \frac{1}{2}$  small square

*ft their 76 or 24 but bar must total 100%*  
*SC2 bar wrong way round*

**B1ft**

(b) 1 : 4

*B1 20 : 80 oe*

*B1 a : b with its correct simplest form*

*SC1 4 : 1*

**B2**

(c)  $\frac{3}{4}$

*oe fraction eg  $\frac{75}{100}$*

**B1**

**[6]**

**M9.(a)**  $4 \times 0.5$  or  $4 \times 50$  or 200(p) or (£)2

**M1**

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

or (£)6 : (£)2

**M1dep**

$8 \div 5 (= 1.6)$

**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

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

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]**

**M10.**  $(5 - 2) \times 180$

or  $(2 \times 5 - 4) \times 90$

or  $108 \times 5$

or 540

or  $A = C$

or  $E = D$

*Line of symmetry drawn with  $90^\circ$  seen or implied (and 360)*

**M1**

Pentagon used

*Quadrilateral used*

$$6 + 3 + 4 + 3 + 4$$



$$\begin{aligned} &\text{or } 6x + 3x + 4x + 3x + 4x \\ &\quad 3 + 3 + 4 \\ &\quad \text{or } 3x + 3x + 4x \end{aligned}$$

M1

20

$$\begin{aligned} &\text{or } 20x (= 540) \quad \text{oe} \\ &\quad 10 \\ &\quad \text{or } 10x (+ 90 = 360) \quad \text{oe} \end{aligned}$$

M1dep

$$\begin{aligned} &540 \div 20 \times 6 \quad \text{oe} \\ &\quad (360 - 90) \div 10 \times 6 \quad \text{oe} \end{aligned}$$

M1dep

162

A1

[5]

M11. 3 : 5

B1 equivalent of 3 : 5 eg 45 : 75

B1 5 : 3

B1 3 : 8

B2

[2]