


**MOCK EXAMINATION 5**

**Paper 1  
Booklet A**

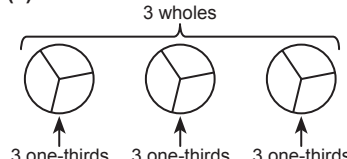
1 (4)  
 $89\ 652 \rightarrow 89\ 652 \approx 90\ 000$  (to the nearest thousand)  


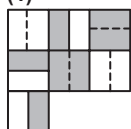
2 (2)  
 \_\_\_\_\_ tens - 2300 = 6500  
 $6500 + 2300 = 8800$   
 $8800 = 880$  tens

3 (1)  
 Value of 9 in 79 534  $\rightarrow 9000$   
 Value of 9 in 48 695  $\rightarrow 90$   
 $9000 + 90 = 9090$

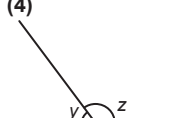
4 (3)  
 $125 \text{ tenths} = \frac{125}{10} = 12.5$

5 (3)  
 $4\frac{4}{9} = \frac{(4 \times 9) + 4}{9} = \frac{40}{9}$

6 (1)  
  
 3 + 3 + 3 = 9 one-thirds

7 (1)  
  
 Number of equal parts  $\rightarrow 14$   
 Number of shaded parts  $\rightarrow 7$   
 Fraction of shaded parts  $\rightarrow \frac{7 (\div 7)}{14 (\div 7)} = \frac{1}{2}$

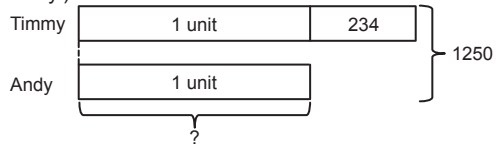
8 (3)  
 Number of horizontal lines  $\rightarrow 4$   
 Number of vertical lines  $\rightarrow 7$   
 Number of vertical lines more than horizontal lines  
 $\rightarrow 7 - 4 = 3$

9 (4)  
  
 ' $\angle y$  is more than  $90^\circ$  but less than  $180^\circ$ ' is not correct.  
 (Note:  $\angle y$  is less than  $180^\circ$  and also less than  $90^\circ$ .)

10 (3)  
 $315^\circ \rightarrow$  between a  $\frac{3}{4}$ -turn and a complete turn  
 $315^\circ$  clockwise turn  $\rightarrow$  May will be facing the **park**.

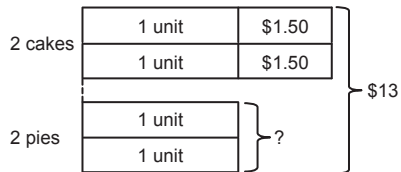
11 (1)  
 Number of stamps Andy and Timmy collected  $\rightarrow 1250$   
 Number of stamps Andy collected  
 $\rightarrow 234$  fewer than Timmy

(Note: 'Andy collected 234 fewer stamps than Timmy' means that Timmy collected 234 more stamps than Andy.)

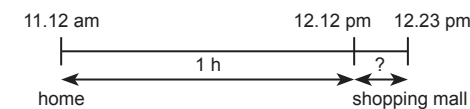


$2 \text{ units} = 1250 - 234 = 1016$   
 $1 \text{ unit} = 1016 \div 2 \text{ units} = 508$   
 Number of stamps Andy collected  $\rightarrow 508$

12 (2)  
 Cost of each cake  $\rightarrow$  \$1.50 more than a pie



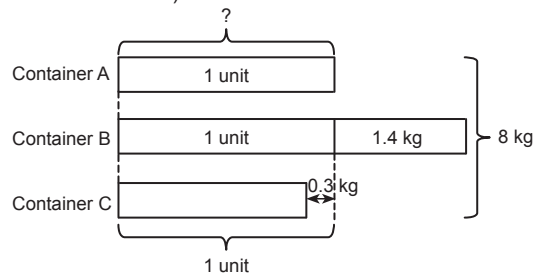
$4 \text{ units} = \$13 - \$1.50 - \$1.50 = \$10$   
 $1 \text{ unit} = \$10 \div 4 = \$2.50$   
 Cost of 1 pie  $\rightarrow$  \$2.50  
 Cost of 2 pies  $\rightarrow \$2.50 \times 2 = \$5.00$

13 (3)  
 Time Tammy walked from home  $\rightarrow 11.12 \text{ am}$   
 Time Tammy reached shopping mall  $\rightarrow 12.23 \text{ pm}$   


From 12.12 pm to 12.23 pm  $\rightarrow 11 \text{ min}$   
 Time taken for Tammy to walk from home to shopping mall  
 $\rightarrow 1 \text{ h } 11 \text{ min} \rightarrow 60 \text{ min} + 11 \text{ min} = 71 \text{ min}$

14 (2)  
 Mass of Container A  
 $\rightarrow 1.4 \text{ kg}$  lighter than Container B  
 $\rightarrow 0.3 \text{ kg}$  heavier than Container C

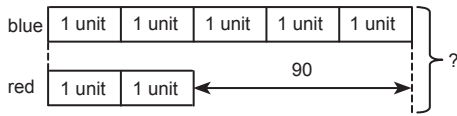
(Note:  
 1. 'The mass of Container A is 1.4 kg lighter than that of Container B' means that the mass of Container B is 1.4 kg heavier than that of Container A.)  
 2. 'The mass of Container A is 1.4 kg lighter than that of Container B but 0.3 kg heavier than that of Container C' means that the mass of Container A is 0.3 kg heavier than that of Container C. Hence, the mass of Container C is 0.3 kg lighter than that of Container A.)



$3 \text{ units} = 8 \text{ kg} + 0.3 \text{ kg} - 1.4 \text{ kg} = 6.9 \text{ kg}$   
 $1 \text{ unit} = 6.9 \text{ kg} \div 3 \text{ units} = 2.3 \text{ kg}$   
 Mass of Container A  $\rightarrow 2.3 \text{ kg}$

15 (4)

Fraction of red balls  $\rightarrow \frac{2}{7} \rightarrow 2$  units  
 Fraction of blue balls  $\rightarrow 1 - \frac{2}{7} = \frac{7}{7} - \frac{2}{7} = \frac{5}{7} \rightarrow 5$  units



3 units = 90  
 1 unit =  $90 \div 3$  units = 30  
 Total number of balls in the basket  $\rightarrow 30 \times 7$  units  
 = **210**

**Booklet B**

16 75 tens  $\rightarrow 750$

5 tenths  $\rightarrow \frac{5}{10} = 0.5$

6 thousandths  $\rightarrow \frac{6}{1000} = 0.006$

$750 + 0.5 + 0.006 = 750.506$

17  $1 \times 12 = 12$

$2 \times 6 = 12$

$3 \times 4 = 12$

Factors of 12  $\rightarrow 1, 2, 3, 4, 6, 12$

$1 \times 15 = 15$

$3 \times 5 = 15$

Factors of 15  $\rightarrow 1, 3, 5, 15$

$1 \times 18 = 18$

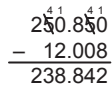
$2 \times 9 = 18$

$3 \times 6 = 18$

Factors of 18  $\rightarrow 1, 2, 3, 6, 9, 18$

Common factors of 12, 15 and 18  $\rightarrow$  **1 and 3**

18  $250.85 - 12.008 = 238.842$



19 Greatest number  $\rightarrow 98\ 630$

Smallest number  $\rightarrow 30\ 689$

Sum of the 2 numbers  $\rightarrow 98\ 630 + 30\ 689 = 129\ 319$

20  $80\ 294 = 80\ 294 \approx 80\ 300$  (to the nearest hundred)



$39\ 962 = 39\ 962 \approx 40\ 000$  (to the nearest hundred)



Difference between the 2 numbers

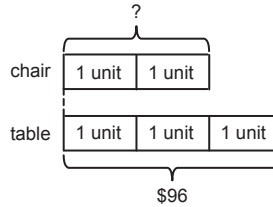
$\rightarrow 80\ 300 - 40\ 000 = 40\ 300$

21  $\frac{2}{5} + \frac{2}{3} + \frac{3}{4} = \frac{2(\times 12)}{5(\times 12)} + \frac{2(\times 20)}{3(\times 20)} + \frac{3(\times 15)}{4(\times 15)}$   
 $= \frac{24}{60} + \frac{40}{60} + \frac{45}{60}$   
 $= \frac{109}{60}$   
 $= 1\frac{49}{60}$

22  $\frac{42(\div 3)}{9(\div 3)} = \frac{14}{3} = 4\frac{2}{3}$   
  $\rightarrow 2$

23 The cost of a chair is  $\frac{2}{3}$  that of the cost of a table.

Cost of a chair  $\rightarrow 2$  units  
 Cost of a table  $\rightarrow 3$  units



3 units = \$96

1 unit =  $\$96 \div 3$  units = \$32

Cost of the chair  $\rightarrow \$32 \times 2$  units = **\$64**

24 Amount of 6 twenty-cent stamps  $\rightarrow \$0.20 \times 6 = \$1.20$

Amount of 9 fifty-cent stamps  $\rightarrow \$0.50 \times 9 = \$4.50$

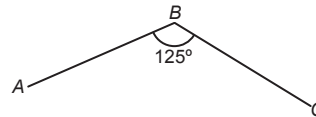
Cost of all the stamps  $\rightarrow \$4.50 + \$1.20 = \$5.70$

Amount of money Eileen gave the cashier  $\rightarrow \$10$

Amount of change Eileen received from the cashier

$\rightarrow \$10 - \$5.70 =$  **\$4.30**

25



26 Fraction of packets of coffee Jason bought  $\rightarrow \frac{2}{5} \rightarrow 2$  units  
 Fraction of packets of milk tea Jason bought

$\rightarrow 1 - \frac{2}{5} = \frac{5}{5} - \frac{2}{5} = \frac{3}{5} \rightarrow 3$  units

Number of packets of milk tea Jason bought  $\rightarrow 51$

3 units = 51

1 unit =  $51 \div 3$  units = 17

Total number of units = 5 units

(The denominator shows '5'.)

Total number of packets of coffee and milk tea Jason bought  $\rightarrow 17 \times 5$  units = **85**

27 Length of cloth Merri had  $\rightarrow 15$  m = 1500 cm

Length of cloth Merri used to make blouses  $\rightarrow 460$  cm

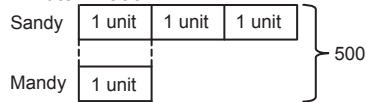
Length of cloth Merri used to make shirts  $\rightarrow 580$  cm

Length of cloth Merri left  $\rightarrow 1500$  cm  $- 460$  cm  $- 580$  cm  
 = **460** cm

28 Number of words Sandy types in 1 minute

$\rightarrow$  thrice as many as Mandy

Total number of words Sandy and Mandy type in 1 minute  $\rightarrow 500$



4 units = 500

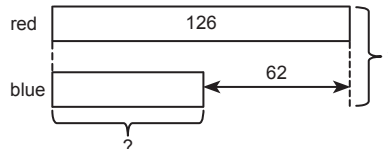
1 unit =  $500 \div 4$  units = 125

Number of words Sandy types in 1 minute

$\rightarrow 125 \times 3$  units = **375**

29 Number of red beads  $\rightarrow 126$

Number of blue beads  $\rightarrow 62$  fewer than red beads



Number of blue beads  $\rightarrow 126 - 62 = 64$   
 Total number of beads  $\rightarrow 126 + 64 = 190$   
 Fraction of blue beads  $\rightarrow \frac{64 (\div 2)}{190 (\div 2)}$   
 $= \frac{32}{95}$

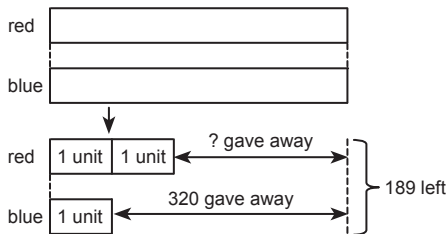
- 30 Mass of rice Karen bought  $\rightarrow 4$  kg  
 Mass of rice Karen cooked in the afternoon  $\rightarrow \frac{2}{5}$  kg  
 Mass of rice Karen cooked in the evening  $\rightarrow \frac{1}{4}$  kg  
 Mass of rice Karen left  $\rightarrow 4$  kg  $-\frac{2(\times 4)}{5(\times 4)}$  kg  $-\frac{1(\times 5)}{4(\times 5)}$  kg  
 $= 3\frac{20}{20}$  kg  $-\frac{8}{20}$  kg  $-\frac{5}{20}$  kg  
 $= 3\frac{7}{20}$  kg

**Paper 2**

- 1 Area of rectangle = Area of square  
 Length of rectangle  $\rightarrow 9$  cm  
 Breadth of rectangle  $\rightarrow 4$  cm  
 Area of rectangle  $\rightarrow 9$  cm  $\times 4$  cm = 36 cm<sup>2</sup>  
 Area of square  $\rightarrow 36$  cm<sup>2</sup>  
 Length of square  $\rightarrow 6$  cm  
 (Note: 6 cm  $\times 6$  cm = 36 cm<sup>2</sup>)  
 The length of the square is **6** cm.

- 2 Mass of flour Wendy bought  $\rightarrow 2$  kg = 2000 g  
 Mass of flour left  $\rightarrow 128$  g  
 Mass of flour packed  $\rightarrow 2000$  g  $- 128$  g = 1872 g  
 Number of smaller bags she repacked  $\rightarrow 9$   
 Mass of flour in 1 bag  $\rightarrow 1872$  g  $\div 9 = 208$  g  
 She packed **208** g of flour in each bag.

- 3 Number of red beads = number of blue beads  
 Number of blue beads Alan gave his friend  $\rightarrow 320$   
 Number of red beads left  $\rightarrow$  twice as many as blue beads  
 Total number of beads left  $\rightarrow 189$

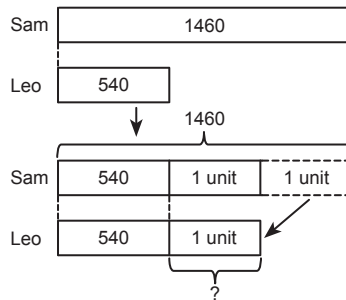


From the model above:  
 3 units = 189  
 1 unit = 189  $\div 3$  units = 63  
 Number of blue beads at first  $\rightarrow 63 + 320 = 383$   
 Number of red beads at first  $\rightarrow 383$   
 Number of red beads Alan gave his friend  
 $\rightarrow 383 - 63 - 63 = 257$   
 Alan gave **257** red beads to his friend.

- 4 Distance of a track  $\rightarrow 2400$  m  
 Fraction of track Thomas ran on Monday  $\rightarrow \frac{2}{5}$   
 Distance Thomas ran on Monday  $\rightarrow \frac{2}{5} \times 2400$  m  
 $= 960$  m  
 Distance Thomas ran on Tuesday  $\rightarrow 900$  m  
 Total distance Thomas ran on Monday and Tuesday  
 $\rightarrow 960$  m  $+ 900$  m = 1860 m  
 Thomas ran a total of **1860** m on both days.

- 5 Amount of money Sharon had  $\rightarrow$  \$58  
 Cost of a pack of 3 guavas  $\rightarrow$  \$4  
 Number of packs of guavas Sharon could buy  
 $\rightarrow \$58 \div \$4 = 14$  r 2  $\approx 14$   
 Maximum number of guavas Sharon could buy  
 $\rightarrow 14$  packets  $\times 3$  guavas = 42  
 Sharon could buy a maximum of **42** guavas with her money.

- 6 Number of fish Sam caught  $\rightarrow 1460$   
 Number of fish Leo caught  $\rightarrow 540$



From the model above:  
 2 units = 1460  $- 540 = 920$   
 Number of fish Sam must give Leo so that they had equal number of fish  $\rightarrow 920 \div 2$  units = 460  
 Sam must give Leo **460** fish so that they had the same number of fish.

- 7 Amount of money Mrs Sim spent in the 1st week  $\rightarrow$  \$120  
 Total amount of money Mrs Sim spent from 2nd to 4th week  $\rightarrow \$95 \times 3$  weeks = \$285  
 Amount of money Mrs Sim spent in the 5th week  
 $\rightarrow$  \$55 less than what she spent from 2nd to 4th week  
 $\rightarrow \$285 - \$55 = \$230$   
 Total amount of money Mrs Sim spent in the 5 weeks  
 $\rightarrow \$120 + \$285 + \$230 = \$635$   
 Mrs Sim spent **\$635** in all.

- 8 Fraction of water in a tank when filled with 60 l of water

$\rightarrow \frac{1(\times 3)}{5(\times 3)} = \frac{3}{15} \rightarrow 3$  units

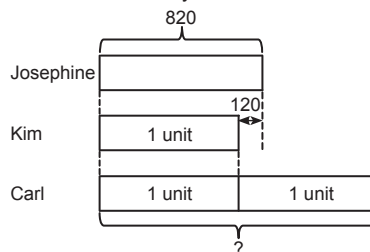
$\frac{2(\times 5)}{3(\times 5)} = \frac{10}{15} \rightarrow 10$  units

3 units = 60 l  
 1 unit = 60 l  $\div 3$  units = 20 l

Amount of water in the tank if it is  $\frac{2}{3}$  full  $\rightarrow 20$  l  $\times 10$  units = 200 l

The tank will have **200 l** of water if it is  $\frac{2}{3}$  full.

- 9 Number of stamps Josephine collected  $\rightarrow 820$   
 Number of stamps Kim collected  
 $\rightarrow 120$  fewer than Josephine  
 Number of stamps Carl collected  
 $\rightarrow 2$  times as many as Kim

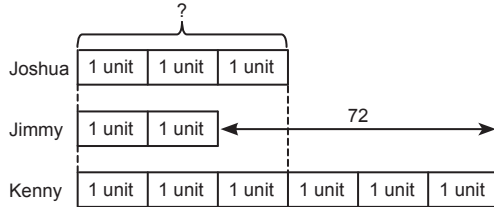


1 unit =  $820 - 120 = 700$   
 Number of stamps Carl collected  $\rightarrow 700 \times 2$  units  
 = 1400  
 Carl collected **1400** stamps.

- 10** Number of seashells Kenny had  $\rightarrow 72$  more than Jimmy  
 (Note: 'If Kenny had 72 more seashells than Jimmy' means that Jimmy had 72 fewer seashells than Kenny.)  
 Number of seashells Kenny had  
 $\rightarrow$  twice as many as Joshua

Jimmy had  $\frac{2}{3}$  as many seashells as Joshua.

Number of seashells Jimmy had  $\rightarrow 2$  units  
 Number of seashells Joshua had  $\rightarrow 3$  units



4 units = 72  
 1 unit =  $72 \div 4$  units = 18  
 Number of seashells Joshua had  $\rightarrow 18 \times 3$  units = 54  
 Joshua had **54** seashells.

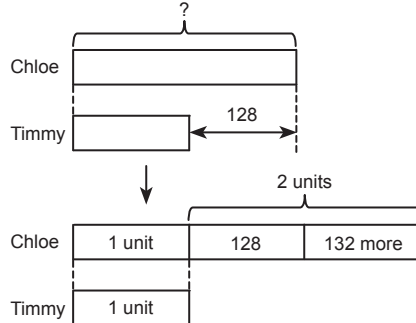
- 11** 9 years ago, Sam's age  $\rightarrow 25 - 9$   
 = 16 years old  
 9 years ago, his father's age  $\rightarrow 56 - 16$   
 = 40 years old  
 Now, his father's age  $\rightarrow 40 + 9$   
 = 49 years old  
 In 2 years' time, his father's age  $\rightarrow 49 + 2$   
 = 51 years old  
 Sam's father will be **51** years old in 2 years' time.

- 12** Fraction of water Nadine poured from the container to Jar A  $\rightarrow \frac{2(\times 4)}{5(\times 4)} = \frac{8}{20} \rightarrow 8$  units  
 Fraction of water Nadine poured from the container to Jar B  $\rightarrow \frac{1(\times 5)}{4(\times 5)} = \frac{5}{20} \rightarrow 5$  units  
 Fraction of water left in the container  
 $\rightarrow 1 - \frac{8}{20} - \frac{5}{20} = \frac{20}{20} - \frac{8}{20} - \frac{5}{20} = \frac{7}{20} \rightarrow 7$  units  
 Amount of water left in the container  $\rightarrow 14$  l  
 7 units = 14 l  
 1 unit =  $14 \text{ l} \div 7$  units = 2 l  
 Amount of water Nadine poured from the container to Jar B  $\rightarrow 2 \text{ l} \times 5$  units = 10 l  
 Nadine poured **10 l** of water into Jar B.

- 13** Mass of rice Mr Tan bought  $\rightarrow 10 \text{ kg} = 10\,000 \text{ g}$   
 Mass of rice Mr Tan cooked  $\rightarrow 2500 \text{ g}$   
 Fraction of rice Mr Tan left  $\rightarrow \frac{3}{5} \rightarrow 3$  units  
 Total number of units  $\rightarrow 5$  units  
 (The denominator shows '5'.)  
 5 units = 10 000 g  
 1 unit =  $10\,000 \text{ g} \div 5$  units = 2000 g

Mass of rice Mr Tan left  $\rightarrow 2000 \text{ g} \times 3$  units  
 = 6000 g  
 Mass of rice Mr Tan gave his brother  
 $\rightarrow 10\,000 \text{ g} - 2500 \text{ g} - 6000 \text{ g} = 1500 \text{ g}$   
 Mr Tan gave **1500 g** of rice to his brother.

- 14** Number of stickers Timmy had  $\rightarrow 128$  fewer than Chloe  
 Number of stickers Chloe bought more  $\rightarrow 132$   
 Number of stickers Chloe had in the end  
 $\rightarrow$  thrice as many as Timmy

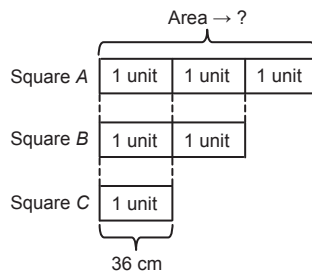


2 units =  $128 + 132 = 260$   
 1 unit =  $260 \div 2$  units = 130  
 Number of stickers Chloe had at first  $\rightarrow 130 + 128$   
 = 258

Chloe had **258** stickers at first.

- 15** The perimeter of square B is 2 times the perimeter of square C.  
 The perimeter of square A is  $1\frac{1}{2}$  times the perimeter of square B.

The perimeter of square A is  $\frac{3}{2}$  times the perimeter of square B.  
 Perimeter of square A  $\rightarrow 3$  units  
 Perimeter of square B  $\rightarrow 2$  units



1 unit = 36 cm  
 3 units =  $36 \text{ cm} \times 3$  units  
 = 108 cm  
 Perimeter of square A  $\rightarrow 108 \text{ cm}$   
 Length of square A  $\rightarrow 108 \text{ cm} \div 4$   
 = 27 cm  
 Area of square A  $\rightarrow$  length  $\times$  length  
 $\rightarrow 27 \text{ cm} \times 27 \text{ cm}$   
 = 729 cm<sup>2</sup>  
 The area of square A is **729 cm<sup>2</sup>**.

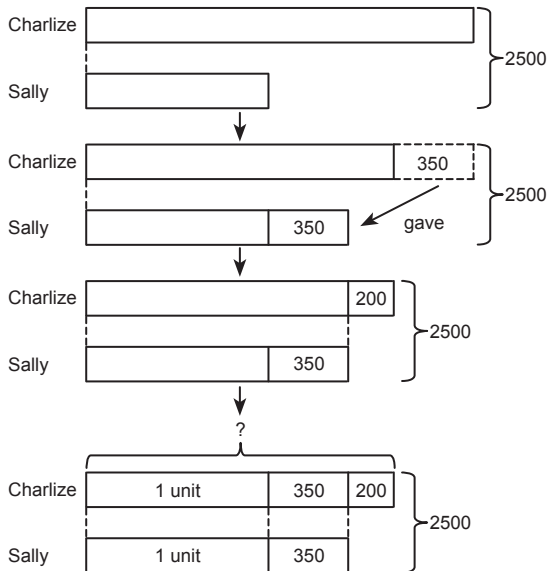
- 16** Cost of 3 storybooks and 2 pens  $\rightarrow$  \$51  
 Cost of 2 storybooks and 10 pencils  $\rightarrow$  \$45  
 Cost of a pencil  $\rightarrow$  half the cost of a pen  
 (Note: 'The cost of a pencil is half the cost of a pen' means that the cost of a pen is twice the cost of a pencil.)

Cost of 2 pens = Cost of 4 pencils  
 Cost of 3 storybooks and 4 pencils → \$51  
 (Note: Make the number of pencils the same in order to find the cost of a storybook.)

$\times 5$	3 storybooks and 4 pencils → \$51	$\times 5$
	2 storybooks and 10 pencils → \$45	
$\times 2$	15 storybooks and 20 pencils → \$255	$\times 2$
	4 storybooks and 20 pencils → \$90	
	11 storybooks and 0 pencils → \$165	

Cost of 11 storybooks → \$165  
 Cost of 1 storybook →  $\$165 \div 11 = \$15$   
 Elise paid **\$15** for 1 storybook.

- 17** Number of pins Sally and Charlize bought → 2500  
 Number of pins Charlize gave Sally → 350  
 Number of pins Charlize had in the end  
 → 200 more than Sally



$$2 \text{ units} = 2500 - 350 - 350 - 200 = 1600$$

$$1 \text{ unit} = 1600 \div 2 \text{ units} = 800$$

Number of pins Charlize had in the end  
 →  $800 + 350 + 200 = 1350$   
 Charlize had **1350 pins** in the end.

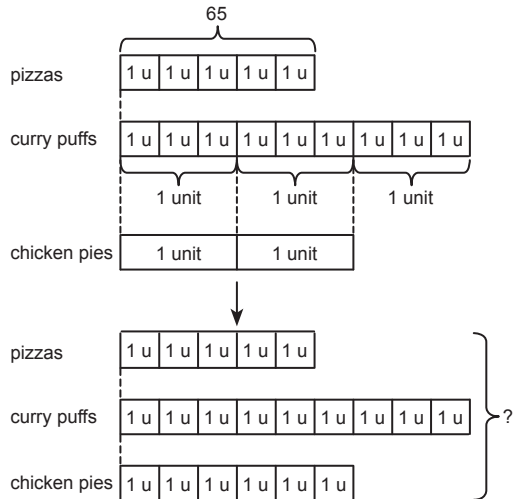
- 18** Number of pizzas David made → 65

He made  $\frac{5}{9}$  as many pizzas as curry puffs.

Number of pizzas made → 5 units  
 Number of curry puffs made → 9 units

He then made some chicken pies which was  $\frac{2}{3}$  the number of curry puffs.

Number of chicken pies made → 2 units  
 Number of curry puffs made → 3 units



$$5 \text{ units} = 65$$

$$1 \text{ unit} = 65 \div 5 \text{ units} = 13$$

$$\text{Total number of units} = 5 \text{ units} + 9 \text{ units} + 6 \text{ units} = 20 \text{ units}$$

Total number of pizzas, curry puffs and chicken pies  
 →  $13 \times 20 \text{ units} = 260$   
 He made **260** pizzas, curry puffs and chicken pies altogether.