



NANYANG PRIMARY SCHOOL

**TERM 1 WEIGHTED ASSESSMENT
2022**

PRIMARY 6

**MATHEMATICS
PAPER 1
(BOOKLET A)**

Total Duration for Booklets A and B: 1 hour

Additional materials: Optical Answer Sheet (OAS)

INSTRUCTIONS TO PUPILS

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Shade your answers in the Optical Answer Sheet (OAS) provided.
5. The use of calculators is **NOT** allowed.

Name: _____ ()

Class: Primary 6 ()

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet. (20 marks)

- 1 The number of cars is $\frac{14}{24}$ of the number of motorcycles in a carpark. What is the ratio of the number of motorcycles to the number of cars in the carpark? Give your answer in the simplest form.

(1) 7 : 12

(2) 12 : 7

(3) 14 : 24

(4) 24 : 14

- 2 What is the value of $29\,400 \div 700$?

(1) 32

(2) 42

(3) 320

(4) 420

3 What is the value of $\frac{11}{12} + \frac{3}{4} - \frac{1}{4}$?

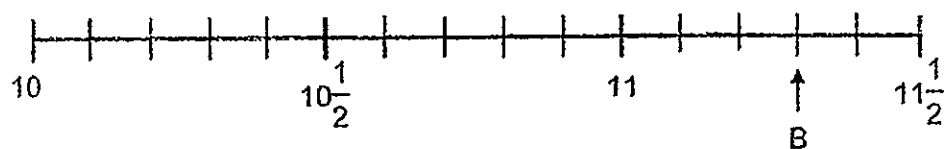
(1) $\frac{7}{12}$

(2) $\frac{9}{12}$

(3) $\frac{15}{12}$

(4) $\frac{17}{12}$

4 In the number line below, what is the mixed number represented by B?



(1) $11\frac{3}{4}$

(2) $11\frac{3}{5}$

(3) $11\frac{3}{8}$

(4) $11\frac{3}{10}$

5 What is the value of $\frac{1}{4} \times \frac{12}{5}$?

(1) $\frac{3}{5}$

(2) $\frac{2}{3}$

(3) $\frac{5}{16}$

(4) $\frac{5}{48}$

6 $\frac{6}{7}$ of a cake is cut equally into 12 slices. What fraction of the whole cake is each slice?

(1) $\frac{1}{14}$

(2) $\frac{1}{42}$

(3) $\frac{18}{7}$

(4) $\frac{72}{7}$

7 Which of the following is the same as 10 007 g ?

- (1) 1.07 kg
- (2) 10.07 kg
- (3) 10.007 kg
- (4) 100.07 kg

8 What is the value of $2.5 \div 500$?

- (1) 5
- (2) 0.5
- (3) 0.05
- (4) 0.005

9 There are 200 children in a camp. 130 of them are girls. What percentage of the children are boys?

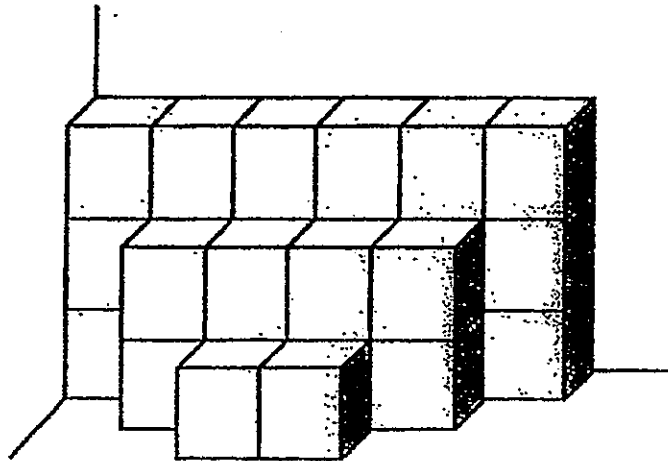
- (1) 30%
- (2) 35%
- (3) 65%
- (4) 70%

- 10 Which of the following is likely to be the mass of a Nanyang Primary School student handbook?



- (1) 20 kg
(2) 2 g
(3) 2000 g
(4) 200 g
- 11 The ratio of the number of red pins to the number of yellow pins to the number of green pins is 4 : 5 : 3. The total number of yellow pins and green pins is 120. How many red pins are there?
- (1) 30
(2) 60
(3) 96
(4) 160

- 12 The solid below is built using 1-cm cubes. Find the volume of the solid.



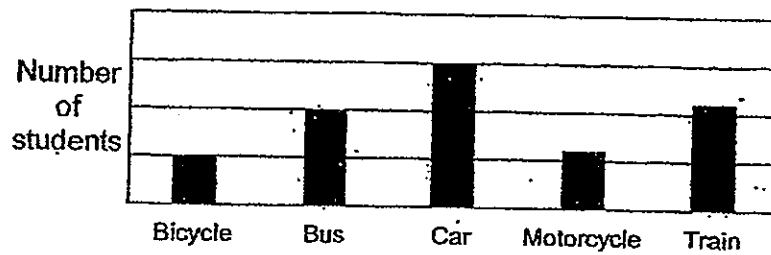
- (1) 28 cm^3
- (2) 26 cm^3
- (3) 20 cm^3
- (4) 18 cm^3

- 13 The table below shows the modes of transport used by students in Class 6E to go to school.

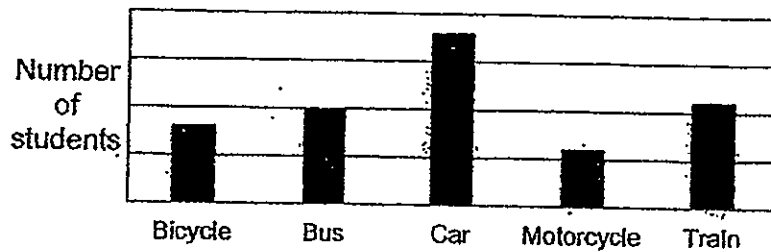
Mode of Transport	Bicycle	Bus	Car	Motorcycle	Train
Number of students	5	10	15	3	8

Which of the following bar graphs represents the information shown in the table above?

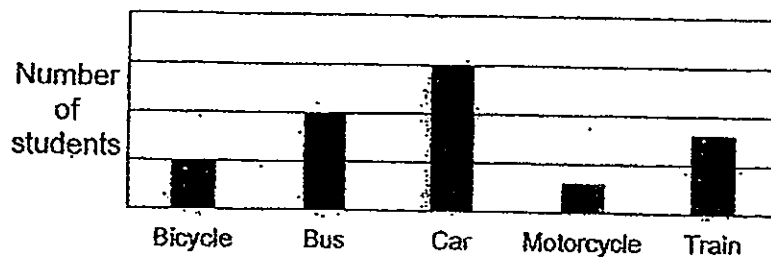
(1)



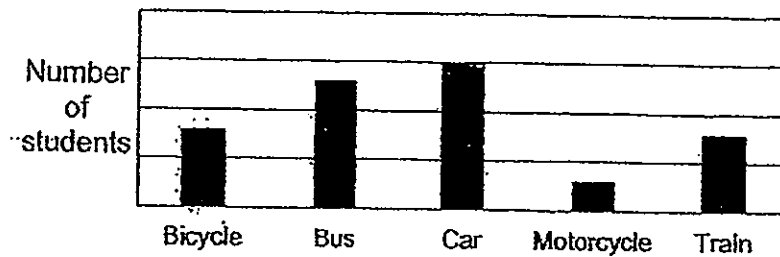
(2)



(3)



(4)



- 14 Mdm Nor used $\frac{1}{3}$ of her money to buy 4 oranges and 8 apples. The cost of 2 oranges was the same as that of 3 apples. What was the greatest number of apples that Mdm Nor could buy with half of the money she had at first?

- (1) 9
(2) 14
(3) 21
(4) 42

- 15 A table with 4 columns is filled with numbers in a certain pattern. The first 6 rows of the table are shown below.

	Column A	Column B	Column C	Column D
Row 1	6	5	4	3
Row 2	7	8	9	10
Row 3	14	13	12	11
Row 4	15	16	17	18
Row 5	22	21	20	19
Row 6	23	24	25	26
⋮	⋮	⋮	⋮	⋮

In which column will the number 343 appear?

- (1) Column A
(2) Column B
(3) Column C
(4) Column D



NANYANG PRIMARY SCHOOL

**TERM 1 WEIGHTED ASSESSMENT
2022**

PRIMARY 6

**MATHEMATICS
PAPER 1
(BOOKLET B)**

Total Duration for Booklets A and B: 1 hour

INSTRUCTIONS TO PUPILS

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. The use of calculators is **NOT** allowed.

Name: _____ ()

Class: Primary 6 ()

Booklet B

/ 25

Please sign and return the examination paper the next day. Any queries should be raised at the same time when returning paper.

Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

16 Find the value of $100 \div (25 - 15) + 8 \times 7$.

Ans: _____

17 Find the value of $10 \div \frac{3}{8}$. Give your answer as a mixed number in the simplest form.

Ans: _____

18 Jennie used 350 g of flour to bake 7 buns. How many such buns could she bake with 250 g of flour?

Ans: _____

- 19 Jonas has \$10. He spends 95¢ on a sandwich and 80¢ on a drink.
How much money does Jonas have left?

Ans: \$ _____

- 20 Alice and Betty donated a sum of money to charity. 40% of the sum of money was donated by Alice. Betty donated \$480. Find the total sum of money donated by Alice and Betty.

Ans: \$ _____

Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

- 21 Mrs Ong had some potted plants at first. After she sold 240 potted plants, she was left with 20% of the potted plants she had at first. How many potted plants did she have at first?

Ans: _____

- 22 Mr Menon had $\frac{5}{6}$ kg of sugar. He packed all the sugar into packets of $\frac{5}{18}$ kg each. How many such packets of sugar did he pack?

Ans: _____

- 23 Ismail has 350 buttons. $\frac{2}{5}$ of the buttons are red and the rest are blue. How many blue buttons does he have?

Ans: _____

- 24 Four times of Ali's mass is equal to $\frac{2}{3}$ of Bala's mass. What is the ratio of Ali's mass to their total mass?

Ans: _____

- 25 Chang had 90 stickers. The ratio of the number of stickers Chang had to the number of stickers Dali had was 9 : 5. How many stickers must Chang give to Dali so that both of them would have the same number of stickers?

Ans: _____

- 26 The ratio of the number of apples to the number of oranges Jisoo had was 7 : 3 at first. After she bought 33 apples and 33 oranges, the ratio of the number of apples to the number of oranges became 5 : 3. Find the total number of apples and oranges she had at first.

Ans: _____

- 27 Rosnie had \$16 at first. After John gave \$8 to Rosnie, he had thrice as much money as Rosnie. How much money did John have in the end?

Ans: \$ _____

- 28 How many 4-digit numbers are there such that each number gives 3000 when rounded to the nearest thousand? The digits 2, 3, 5 and 0 appear once in each number.

2 3 5 0

Ans: _____

- 29 Lisa paid \$40.50 for a chocolate cake and 6 fruit tarts. Samuel paid \$25.50 for one such chocolate cake and 2 such fruit tarts. How much did one such chocolate cake cost?

Ans: \$ _____

- 30 Shop A and Shop B sell pens of four colours. The table below shows the number of pens sold by each shop in January. The number of blue pens sold by Shop A is not shown.

Colour	Number of pens sold by Shop A	Number of pens sold by Shop B
Red	140	120
Blue	?	335
Black	210	245
Purple	80	100

In January, 50% of the pens sold by Shop A were blue pens.

Each of the statements is either true, false or not possible to tell from the information given. For each statement, put a tick (✓) to indicate your answer.

Statement	True	False	Not possible to tell
Shop A sold more blue pens than Shop B in January.			
The number of black pens sold by Shop B in January was twice the number of black pens sold by Shop B in February.			
In January, 15% of the pens sold by Shop B were red pens.			

End of Paper

(20 marks)

- (4) 24:14

$$\frac{12:7}{\text{cons}} \quad (2)$$

- (4) 420

$$\frac{29400}{700} = 42 \text{ (ans)} \quad [2]$$



$$1\frac{1}{4} \times \frac{12^3}{5} = \frac{3}{5} \text{ (ans)}$$

- (1)

- (4) $\frac{72}{7}$

$$= \frac{1}{14} \text{ (ans)} \quad (1)$$

- (4) $\frac{17}{12}$

$$\frac{11}{12} + \frac{3}{4}x^3 - \frac{1}{4}x^3$$

$$= \frac{11}{12} + \frac{9}{12} - \frac{3}{12}$$

$$= \frac{17}{12} \text{ (ans)} \quad (4)$$

-

- (4) $11\frac{3}{10}$

$$\frac{3}{10} \quad \frac{5}{10}$$

$$1\frac{3}{10} \text{ (ans)}$$

(4)

- (4) 100.07 kN

$$1 \text{ kg} = 1000 \text{ g}$$

$$\frac{10.007 \text{ kg}}{(\text{mass})} = 10.007 \text{ g}$$

(3)

- {4} 0.035

$2.5 \div 500$

$$= 2.5 \frac{1}{5} \div 100$$

$$= 0.5 \div 100 \quad (4)$$

$$= 0.005 \text{ (ans)}$$

- (4) 70%

$$200 - 130 = 70 \text{ boys}$$

$$\frac{3570}{1.295} \times 100\%$$

$$= 35\% \text{ (ans) } (2)$$

- 10 Which of the following is likely to be the mass of a Nanyang Primary School student handbook?



- (1) 20 kg
(2) 2 g
(3) 2000 g
(4) 200 g

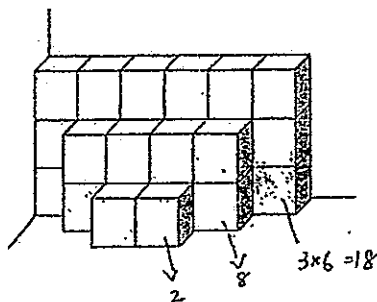
(4)

- 11 The ratio of the number of red pins to the number of yellow pins to the number of green pins is 4 : 5 : 3. The total number of yellow pins and green pins is 120. How many red pins are there?

- (1) 30
(2) 60
(3) 96
(4) 180

$$\begin{aligned} R &= Y : G & Y + G &= 120 \\ 4 &: 5 : 3 \\ 8u &= 120 & (2) \\ 1u &= 15 \\ 4u &= 15 \times 4 = 60 \text{ (ans)} \end{aligned}$$

- 12 The solid below is built using 1-cm cubes. Find the volume of the solid.



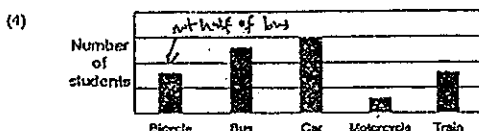
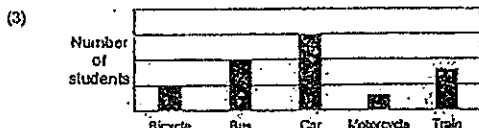
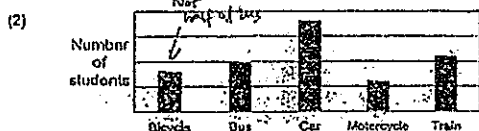
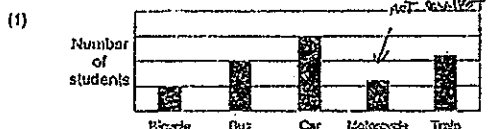
- (1) 28 cm³
(2) 25 cm³
(3) 20 cm³
(4) 18 cm³

$$\begin{aligned} 2 + 8 + 18 &= 28 \\ 28 \text{ cm}^3 & \quad (1) \end{aligned}$$

- 13 The table below shows the modes of transport used by students in Class 6E to go to school.

Mode of Transport	Bicycle	Bus	Car	Motorcycle	Train
Number of students	5	10	15	3	8

Which of the following bar graphs represents the information shown in the table above?



(3)

- 14 Mimi Nor used $\frac{1}{3}$ of her money to buy 4 oranges and 8 apples. The cost of 2 oranges was the same as that of 3 apples. What was the greatest number of apples that Mimi Nor could buy with half of the money she had at first?

- (1) 8
(2) 14
(3) 21
(4) 42

$$\begin{aligned} \frac{1}{3} \text{ of } \$ &\rightarrow 4 \text{ oranges} + 8 \text{ apples} \\ 2 \text{ oranges} &= 3 \text{ apples} \\ 4 \text{ oranges} &= 6 \text{ apples} \\ \frac{1}{3} \text{ of } \$ &\rightarrow 6 \text{ apples} + 8 \text{ apples} \\ &= 14 \text{ apples} \\ \text{Whole} &= \frac{2}{3} \text{ of } \$ \rightarrow 14 \times 3 = 42 \text{ apples} \\ \frac{1}{2} \text{ of } \$ &\rightarrow 42 \div 2 = 21 \text{ apples (ans)} \end{aligned}$$

- 15 A table with 4 columns is filled with numbers in a certain pattern. The first 6 rows of the table are shown below.

	Column A	Column B	Column C	Column D
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Row 3	14	13	12	11
Row 4	15	16	17	18
Row 5	22	21	20	19
Row 6	23	24	25	26

In which column will the number 343 appear?

- (1) Column A
(2) Column B
(3) Column C
(4) Column D

$$\begin{aligned} 342 & \quad 343 \\ 343 & \quad 344 \\ 343 \div 8 &= 42 \text{ R } 7 \\ 42 \times 8 &= 336 \text{ (column B)} \\ &\downarrow \\ &\text{multiple of 8} \\ &\text{7 places after 336} \end{aligned}$$



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PRIMARY 6

MATHEMATICS

PAPER 1

(BOOKLET B)

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Name: _____ ()

Class: Primary 6 ()

Booklet B

1/25

Please sign and return the examination paper the next day. Any queries should be raised at the same time when returning paper.

- 19 Jonas has \$10. He spends 95c on a sandwich and 80c on a drink. How much money does Jonas have left?

$$10.00 - 0.95 - 0.80 \\ = 8.25 \text{ (ans)}$$

Ans: \$ 8.25

- 20 Alice and Betty donated a sum of money to charity. 40% of the sum of money was donated by Alice. Betty donated \$480. Find the total sum of money donated by Alice and Betty.

sum of \$

40% Alice 100% - 40% = 60% Betty (\$480)

$$60\% \rightarrow 480 \\ 10\% \rightarrow 480 \div 6 \\ = 80 \\ 100\% \rightarrow 80 \times 10 \\ = 800 \text{ (ans)}$$

Ans: \$ 800

Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

- 16 Find the value of $100 \div (25 - 15) + 8 \times 7$.

$$100 \div (25 - 15) + 8 \times 7 \\ = 100 \div 10 + 8 \times 7 \\ = 10 + 56 = 66 \text{ (ans)} \quad \text{Ans: } 66$$

- 17 Find the value of $10 \div \frac{3}{8}$. Give your answer as a mixed number in its simplest form.

$$10 \div \frac{3}{8} \\ = 10 \times \frac{8}{3} \text{ (KFC)} \\ = \frac{80}{3} = 26 \frac{2}{3} \text{ (ans)} \quad \text{Ans: } 26 \frac{2}{3}$$

- 18 Jennie used 350 g of flour to bake 7 buns. How many such buns could she bake with 250 g of flour?

$$350 \div 7 = 50 \text{ (1 bun)} \\ 250 \div 50 = 5 \text{ buns} \text{ (ans)}$$

Ans: 5

Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

- 21 Mrs Ong had some potted plants at first. After she sold 240 potted plants, she was left with 20% of the potted plants she had at first. How many potted plants did she have at first?

? - 240 \rightarrow left 20% of potted plants at 1st.

\hookrightarrow means 80% of potted plants.

$$80\% \rightarrow 240 \\ 10\% \rightarrow 240 \div 8 = 30 \\ 100\% \rightarrow 30 \times 10 = 300 \text{ (ans)} \quad \text{Ans: } 300$$

- 22 Mr Menon had $\frac{5}{6}$ kg of sugar. He packed all the sugar into packets of $\frac{5}{18}$ kg each. How many such packets of sugar did he pack?

$$\frac{5}{6} \div \frac{5}{18} = \frac{5}{6} \times \frac{18}{5} \text{ (KFC)} \\ = 3 \text{ (ans)}$$

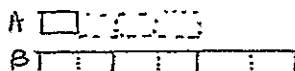
Ans: 3

- 23 Ismail has 350 buttons. $\frac{2}{5}$ of the buttons are red and the rest are blue. How many blue buttons does he have?

$$1 - \frac{2}{5} = \frac{3}{5} \text{ (blue)} \\ \frac{3}{5} \times 350 = 210 \text{ (ans)}$$

Ans: 210

- 24 Four times of Ali's mass is equal to $\frac{2}{3}$ of Bal's mass. What is the ratio of Ali's mass to their total mass?



$$A = 4u$$

$$B = 6u$$

$$= 1 = 7 \text{ (Ans)} \quad \text{Ans: } 1:7$$

- 25 Chang had 90 stickers. The ratio of the number of stickers Chang had to the number of stickers Dai had was 9:5. How many stickers must Chang give to Dai so that both of them would have the same number of stickers?

$$C = D = \text{total} \quad 14 \div 2 = 7$$

$$9:5 = 14 \quad 9u = 90 \quad 1u = 10 \quad 2u = 10 \times 2 = 20 \text{ (Ans)}$$

$$-2u \quad \begin{pmatrix} -7 & -7 \end{pmatrix} \div 2u \quad 7:7 = 14$$

$$\text{Ans: } 20$$

- 26 The ratio of the number of apples to the number of oranges Joo had was 7:3 at first. After she bought 33 apples and 33 oranges, the ratio of the number of apples to the number of oranges became 5:3. Find the total number of apples and oranges she had at first.

$$A:O = \text{Diff} \quad \text{Unchanged Difference}$$

$$7:3 = 4 \quad 10u - 7u = 3u \quad 3u = 33 \quad 1u = 11 \quad 10u = 10 \times 11 = 110 \text{ (Ans)}$$

$$+34 \quad \begin{pmatrix} +33 & +33 \end{pmatrix} \quad 5:3 = 2 \times 2$$

$$\rightarrow = 10:6 = 5:3$$

$$\text{Ans: } 110$$

- 27 Rosnie had \$18 at first. After John gave \$8 to Rosnie, he had thrice as much money as Rosnie. How much money did John have in the end?

$$18 + 8 = 24 \text{ (R) at the end}$$

$$1u = 24$$

$$3u = 24 \times 3$$

$$= 72 \text{ (J) at the end}$$

$$\$72 \text{ (Ans)}$$

$$\text{Ans: } \$72$$

- 28 How many 4-digit numbers are there such that each number gives 3000 when rounded to the nearest thousand? The digits 2, 3, 5 and 0 appear once in each number.

2	3	5	0
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$$\begin{aligned} & \text{① } 2503 \\ & \text{② } 2530 \\ & \text{③ } 3025 \\ & \text{④ } 3052 \\ & \text{⑤ } 3250 \\ & \text{⑥ } 3205 \end{aligned} \quad \left. \begin{array}{l} \\ \\ \\ \\ \\ \end{array} \right\} \approx 3000$$

$$\text{Ans: } 6$$

- 29 Lisa paid \$40.50 for a chocolate cake and 6 fruit tarts. Samuel paid \$25.50 for one such chocolate cake and 2 such fruit tarts. How much did one such chocolate cake cost?

$$\begin{aligned} & 1C + 6T = 40.5 \\ & 1C + 2T = 25.5 \\ & \hline & 4T = 40.5 - 25.5 \\ & \quad = 15 \\ & 2T = 15 \div 2 \\ & \quad = 7.5 \\ & 1C = 25.5 - 7.5 \\ & \quad = 18 \text{ (Ans)} \end{aligned}$$

$$\text{Ans: } \$18$$

- 30 Shop A and Shop B sell pens of four colours. The table below shows the number of pens sold by each shop in January. The number of blue pens sold by Shop A is not shown.

Colour	Number of pens sold by Shop A	Number of pens sold by Shop B
Red	140	120
Blue	?	335
Black	210	245
Purple	80	100

In January, 50% of the pens sold by Shop A were blue pens. $50\% \rightarrow 140 + 210 + 80 = 430$

Each of the statements is either true, false or not possible to tell from the information given. For each statement, put a tick (✓) to indicate your answer.

Statement	True	False	Not possible to tell
(430) ✓ Shop A sold more blue pens than Shop B in January.	✓		
245 The number of black pens sold by Shop B in January was twice the number of black pens sold by Shop B in February. 245 is not divisible by 2 to get a whole number.		✓	
In January, 15% of the pens sold by Shop B were red pens.	✓		

$$\frac{120}{120 + 335 + 245 + 100} \times 100\% = 15\% \text{ (True)}$$