

Nanyang Primary School
Primary 6
Mathematics
Term 1 Non-Weighted Assessment

Name: _____ ()

Marks:

Class: Primary 6 ()

/20

Date: _____

Parent's Signature: _____

Duration: 40 minutes

The use of calculators is NOT allowed.

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

Questions 1 to 3 carry 1 mark each. Questions 4 to 5 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 write your answer (1, 2, 3 or 4) in the bracket () provided.

(7 marks)

1 What is the value of $\frac{3}{7} \times \frac{5}{2}$?

(1) $\frac{8}{9}$

(2) $\frac{15}{9}$

(3) $\frac{15}{14}$

(4) $\frac{6}{35}$

()

2 The length, breadth and height of a box are in the ratio 3 : 2 : 1 respectively. The length of the box is 6 cm. Find the volume of the box.

- (1) 12 cm^3
- (2) 18 cm^3
- (3) 36 cm^3
- (4) 48 cm^3

3 The table below shows the number of toys collected by Sunshine Centre in 2021 and 2022. Part of the table is covered by an ink blot. The number of soft toys collected and the total number of toys collected were both three-digit numbers.

| Type of Toy | 2021 | 2022 |
|----------------------|------|------|
| Wooden Toys | 121 | 80 |
| Electronic Toys | 65 | 74 |
| Soft Toys | 18 | 200 |
| Total number of toys | 3 | 354 |

Which of the following statement(s) can be true?

- A. In 2022, 10% of the total number of toys collected were damaged.
- B. In 2021, 20% of the total number of toys collected were electronic toys.
- C. In 2021, 50% of the total number of toys collected were soft toys.

- (1) A only
- (2) C only
- (3) B and C only
- (4) A, B and C

- 4 Derinda had 25 m of ribbon. She used it to make as many flowers as possible. She used $\frac{2}{3}$ m of ribbon to make each flower. How many metres of the ribbon were left?

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

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

(3) $\frac{25}{3}$

(4) $\frac{50}{3}$

()

- 5 The table below shows the number of clips in different coloured containers.

| Colour of container | Number of clips in each container |
|---------------------|-----------------------------------|
| White | 30 |
| Blue | 50 |
| Green | 60 |

Clement has some white containers and some blue containers. The ratio of the total number of clips in Clement's white containers to the total number of clips in his blue containers is 3 : 2. Express the number of his blue containers as a fraction of the total number of his containers.

(1) $\frac{10}{19}$

(2) $\frac{5}{8}$

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

(4) $\frac{2}{7}$

()

Questions 6 to 8 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (3 marks)

- 6 $\frac{3}{4}$ of a pizza was shared equally among 5 people. What fraction of the pizza did each person receive?

Ans: _____

- 7 The breadth of a rectangle is $\frac{5}{6}$ m and its area is 2 m². Find the length of the rectangle. Express your answer as a mixed number in its simplest form.

Ans: _____ m

- 8 Janice is $\frac{5}{7}$ as tall as Xiao Ming. What is the ratio of Xiao Ming's height to Janice's height?

Ans: _____

Questions 9 to 13 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. (10 marks)

- 9 The ratio of the number of sweets Rachel had to the number of sweets Euodia had was 2 : 3 at first. After Rachel bought 8 more sweets, the ratio of the number of sweets Rachel had to the number of sweets Euodia had became 5 : 6. How many sweets did Euodia have?

Ans: _____

- 10 Clarence, Amir and Jun Wei received some stickers. The ratio of the number of stickers that Clarence received to the number of stickers Amir received was 4 : 9. The ratio of the number of stickers Jun Wei received to the number of stickers Amir received was 4 : 3. Clarence received 24 stickers. How many stickers did Jun Wei receive?

Ans: _____

- 11 Ashraf had some money at first. He spent 10% of it on food and \$140 on a bicycle. He then gave 50% of the remainder to his brother. In the end, he had \$200 left. How much money did Ashraf spend on food?

Ans: \$ _____

- 12 Amrit had some sugar at first. He used 42 g of sugar to bake some muffins and $\frac{5}{7}$ of the remaining sugar to bake some cookies. In the end, he had $\frac{1}{7}$ of the sugar left. How much sugar did he have at first?

Ans: _____ g

- 13 Christopher and Helen had 75 erasers altogether at first. Christopher gave away $\frac{4}{5}$ of his erasers. Helen gave away $\frac{2}{3}$ of her erasers. In the end, Helen had 1 more eraser than Christopher. How many erasers did Christopher had in the end?

Ans: _____

End of Paper

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 Primary 6
 Mathematics
Term 1 Non-Weighted Assessment

Name: _____ () Marks: /20
 Class: Primary 6 ()
 Date: _____ Parent's Signature: _____

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- 2 The length, breadth and height of a box are in the ratio 3 : 2 : 1 respectively. The length of the box is 6 cm. Find the volume of the box.

$$\frac{L:B:H}{3:2:1} = \frac{6 \times 4 \times 2}{6:4:2} = 24 \times 2 \\ = 48 \text{ cm}^3$$

- (1) 12 cm³ (4) 48 cm³ ✓ (4)

The value of $\frac{3}{7} \times \frac{5}{2}$ is

Questions 1 to 3 carry 1 mark each. Questions 4 to 5 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 write your answer (1, 2, 3 or 4) in the bracket () provided.

(7 marks)

- 1 What is the value of $\frac{3}{7} \times \frac{5}{2}$?

$$(1) \frac{8}{9} \quad (2) \frac{15}{7} \times \frac{5}{2} = \frac{3 \times 5}{7 \times 2} = \frac{15}{14} = \frac{15}{14} \\ (3) \frac{15}{14} \quad (4) \frac{6}{35}$$

(3)

- 2 The table below shows the number of toys collected by Sunshine Centre in 2021 and 2022. Part of the table is covered by an ink blot. The number of soft toys collected and the total number of toys collected were both three-digit numbers.

| Type of Toy | 2021 | 2022 |
|----------------------|------|------|
| Wooden Toys | 121 | 80 |
| Electronic Toys | 65 | 74 |
| Soft Toys | 18 | 200 |
| Total number of toys | 3 | 354 |

Which of the following statement(s) can be true?

- A. In 2022, 10% of the total number of toys collected were damaged. X
 B. In 2021, 20% of the total number of toys collected were electronic toys. X
 C. In 2021, 50% of the total number of toys collected were soft toys. ✓

- A) (1) A only (2) C only ✓ (3) B and C only (4) A, B and C
 B) (1) 10% of 354 = $354 \div 10 = 35.4$ If 20% of total were electronic toys
 Total = $65 \times 5 = 325$
 Not possible to have 325
 However, the minimum possible total is $121 + 65 + 180 = 366$

- C) If 50% of total were soft toys, $W+E \rightarrow 50\% \text{ of total}$
 $W+E \rightarrow 121 + 65 = 186$
 There could be 186 soft toys.
 (2)

- 4 Deninda had 25 m of ribbon. She used it to make as many flowers as possible. She used $\frac{2}{3}$ m of ribbon to make each flower. How many metres of the ribbon were left?

$$\begin{array}{ll}
 (1) & \frac{1}{3} \quad 25 \div \frac{2}{3} = 25 \times \frac{3}{2} \\
 (2) & \frac{1}{2} \quad = \frac{75}{2} \quad \frac{1}{2} \text{ of } \frac{2}{3} \text{ m were left} \\
 (3) & \frac{25}{3} \quad = 37\frac{1}{2} \\
 (4) & \frac{50}{3} \quad \frac{1}{2} \times \frac{25}{3} = \frac{1}{2} \times \frac{50}{3} =
 \end{array}$$

()

- 5 The table below shows the number of clips in different coloured containers.

| Colour of container | Number of clips in each container |
|---------------------|-----------------------------------|
| White | 30 |
| Blue | 50 |
| Green | 60 |

Clement has some white containers and some blue containers. The ratio of the total number of clips in Clement's white containers to the total number of clips in his blue containers is 3 : 2. Express the number of his blue containers as a fraction of the total number of his containers.

$$\begin{array}{l}
 \text{Clips in white containers} \rightarrow 30 \times 5 = 150 \\
 \text{Clips in blue containers} \rightarrow 50 \times 2 = 100
 \end{array}$$

$$\begin{array}{r}
 \text{Clips in white : Clips in blue} \\
 \hline
 (1) \quad \frac{10}{15} \\
 (2) \quad \frac{5}{8} \quad : \quad \frac{100}{3} \quad : \quad 2
 \end{array}$$

$$\begin{array}{r}
 \text{White containers} \rightarrow 150 \div 30 = 5 \\
 \text{Blue containers} \rightarrow 100 \div 50 = 2 \\
 \text{Total containers} \rightarrow 5+2=7
 \end{array}$$

()

- Questions 6 to 8 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (3 marks)

- 6 $\frac{3}{4}$ of a pizza was shared equally among 5 people. What fraction of the pizza did each person receive?

$$\begin{array}{l}
 \frac{3}{4} \div 5 = \frac{3}{4} \times \frac{1}{5} \\
 = \frac{3}{20} \\
 \text{Ans: } \frac{3}{20}
 \end{array}$$

- 7 The breadth of a rectangle is $\frac{5}{6}$ m and its area is 2 m². Find the length of the rectangle. Express your answer as a mixed number in its simplest form.

$$\text{Length} = \text{Area} \div \text{Breadth}$$

$$\begin{array}{l}
 \rightarrow 2 \div \frac{5}{6} \\
 = 2 \times \frac{6}{5} \\
 = \frac{12}{5} \\
 = 2\frac{2}{5} \\
 \text{Ans: } 2\frac{2}{5}
 \end{array}$$

- 8 Janice is $\frac{5}{7}$ as tall as Xiao Ming. What is the ratio of Xiao Ming's height to Janice's height?

$$\begin{array}{l}
 \text{Janice} \rightarrow 5 \text{ units} \quad \text{Xiao Ming} \rightarrow 7 \text{ units} \\
 \text{Xiao Ming} \rightarrow 7 \text{ units} \quad 7 : 5
 \end{array}$$

Ans: 7:5

Questions 9 to 13 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. (10 marks)

- 9 The ratio of the number of sweets Rachel had to the number of sweets Eudia had was $2 : 3$ at first. After Rachel bought 8 more sweets, the ratio of the number of sweets Rachel had to the number of sweets Eudia had became $5 : 6$. How many sweets did Eudia have?

\rightarrow unchanged

$$\begin{array}{rcl} \text{Before} & \text{After} & 5 \text{ units} - 4 \text{ units} = 1 \text{ unit} \\ R:E & R:E & | \text{ unit} = 8 \\ 2:\textcircled{2} & \boxed{5:\textcircled{6}} & 6 \text{ units} = 8 \times 6 \\ & & = 48 \end{array}$$

Ans: 48

- 10 Clarence, Amir and Jun Wei received some stickers. The ratio of the number of stickers that Clarence received to the number of stickers Amir received was $4 : 9$. The ratio of the number of stickers Jun Wei received to the number of stickers Amir received was $4 : 3$. Clarence received 24 stickers. How many stickers did Jun Wei receive?

$$\begin{array}{rcl} C:A & J:W:A & \frac{4}{4:\textcircled{9}} \quad \frac{4:\textcircled{3}}{12:9} \\ & & \end{array}$$

$4 \text{ units} = 24$

$$\begin{array}{l} 12 \text{ units} = 24 \times 3 \\ = 72 \end{array}$$

6

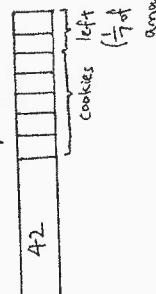
- 11 Ashraf had some money at first. He spent 10% of it on food and \$140 on a bicycle. He then gave 50% of the remainder to his brother. In the end, he had \$200 left. How much money did Ashraf spend on food?

$\rightarrow 200 \times 2$

$$\begin{array}{rcl} & = 400 & 90\% \text{ of} \\ 400 + 140 & = 540 & \text{original} \\ & & \text{money} \\ 90\% \rightarrow 540 & & \\ 10\% \rightarrow 540 \div 9 & & \\ = 60 & & \end{array}$$

Ans: 60

- 12 Amit had some sugar at first. He used 42 g of sugar to bake some muffins and $\frac{5}{7}$ of the remaining sugar to bake some cookies. In the end, he had $\frac{1}{7}$ of the sugar left. How much sugar did he have at first?



$$\begin{array}{rcl} \frac{1}{7} \text{ of original amount} & \rightarrow 2 \text{ units} & 7 \text{ units} = 42 \\ \text{Original amount} & \rightarrow (2 \times 7) \text{ units} & 14 \text{ units} = 42 \times 2 \\ & = 14 \text{ units} & = 84 \\ & & \end{array}$$

$$\begin{array}{l} 14 \text{ units} - 7 \text{ units} = 7 \text{ units} \\ \text{Ans: } \underline{\underline{84}} \end{array}$$

6

- 13 Christopher and Helen had 75 erasers altogether at first. Christopher gave away $\frac{4}{5}$ of his erasers. Helen gave away $\frac{2}{3}$ of her erasers. In the end, Helen had 1 more eraser than Christopher. How many erasers did Christopher had in the end?

Fraction of Christopher's erasers left $\rightarrow 1 - \frac{4}{5} = \frac{1}{5}$

Fraction of Helen's erasers left $\rightarrow 1 - \frac{2}{3} = \frac{1}{3}$

$$\begin{aligned} & 75 \\ & \left. \begin{array}{|c|c|c|c|c|c|c|} \hline & & & & & & \\ \hline C & \boxed{} & \boxed{} & \boxed{} & \boxed{} & \boxed{} & \boxed{} \\ \hline H & \boxed{} & \boxed{} & \boxed{} & \boxed{} & \boxed{} & \boxed{} \\ \hline \end{array} \right\} \\ & \left. \begin{array}{|c|c|c|c|c|c|c|} \hline & & & & & & \\ \hline C & \boxed{} & \boxed{} & \boxed{} & \boxed{} & \boxed{} & \boxed{} \\ \hline H & \boxed{} & \boxed{} & \boxed{} & \boxed{} & \boxed{} & \boxed{} \\ \hline \end{array} \right\} \\ & 75 \end{aligned}$$

$$\begin{aligned} & 75 - 3 = 72 \\ & 8 \text{ units} = 72 \\ & 1 \text{ unit} = 72 \div 8 \\ & = 9 \end{aligned}$$

Ans: 9