



NANYANG PRIMARY SCHOOL

**END-OF-YEAR EXAMINATION
2024**

PRIMARY 4

**MATHEMATICS
(BOOKLET A)**

Total Duration for Booklets A and B: 1 hour 45 minutes

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.

Name: _____ ()

Class: Primary 4 ()

Questions 1 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. (30 marks)

1. The value of digit 5 in 75 328 is _____.

- (1) 50
- (2) 500
- (3) 5000
- (4) 50 000

2. 36 258 rounded to the nearest hundred is _____.

- (1) 36 300
- (2) 36 260
- (3) 36 200
- (4) 36 000

3. 3 and 4 are factors of _____.

- (1) 8
- (2) 18
- (3) 24
- (4) 34

4. How many one-thirds are there in 4 wholes?

(1) 12

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

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

(4) 4

5. In which of the following does the digit 7 stand for 7 tenths?

(1) 13.75

(2) 37.68

(3) 45.37

(4) 71.54

6. Which figure has perpendicular lines?

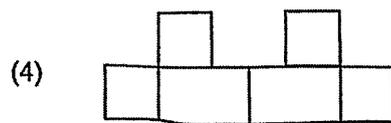
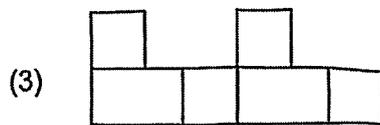
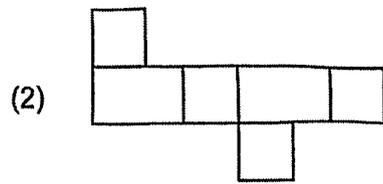
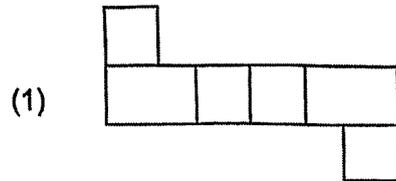
(1) A

(2) H

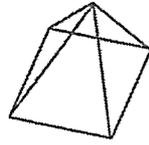
(3) N

(4) V

7. Each figure below is made up of 4 identical squares and 2 identical rectangles. Which one has a line of symmetry?

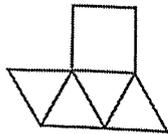


8. The figure shows a pyramid.

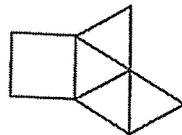


Which of the following is a net of the pyramid?

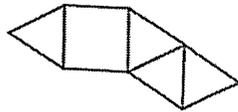
(1)



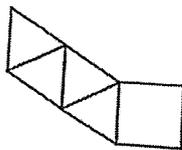
(2)



(3)



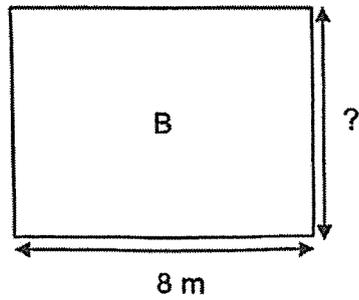
(4)





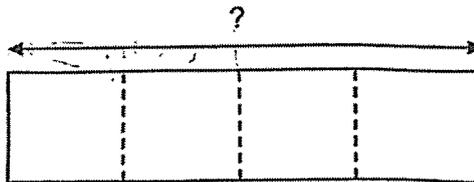
9.

The area of rectangle B is 56 m^2 . Its length is 8 m . Find the breadth of rectangle B.



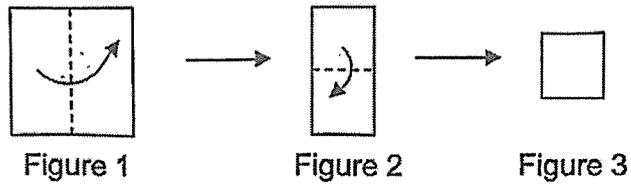
- (1) 6 m
- (2) 7 m
- (3) 8 m
- (4) 9 m

10. A rectangle is divided into 4 identical squares as shown below. The perimeter of the rectangle is 80 cm . What is the length of the rectangle?



- (1) 16 cm
- (2) 32 cm
- (3) 48 cm
- (4) 64 cm

11. A square piece of paper as shown in Figure 1 is folded twice into the shape of a smaller square as shown in Figure 3 below. The area of the smaller square is 9 cm^2 . What is the perimeter of the square piece of paper as shown in Figure 1?

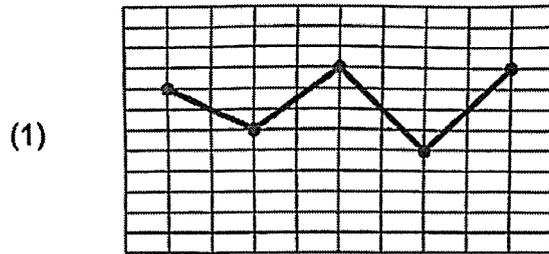


- (1) 12 cm
(2) 18 cm
(3) 24 cm
(4) 36 cm
12. Jun Kai earned \$130 for a day of work. How much did Jun Kai earn for 14 days of work?
- (1) \$550
(2) \$650
(3) \$1720
(4) \$1820

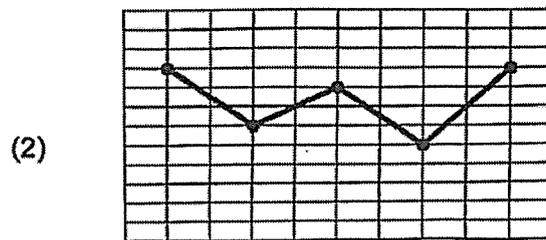
13. The table below shows the number of customers at a drinks stall from Monday to Friday.

| Monday | Tuesday | Wednesday | Thursday | Friday |
|--------|---------|-----------|----------|--------|
| 450 | 300 | 500 | 250 | 450 |

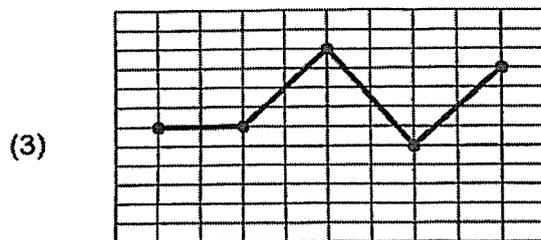
Which one of the line graphs below best represents the information in the table?



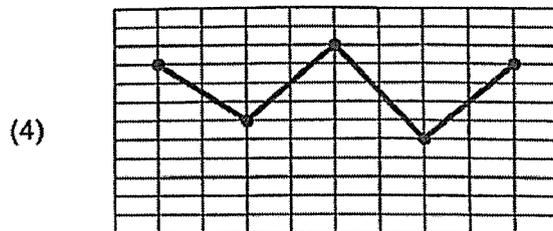
Mon Tue Wed Thu Fri



Mon Tue Wed Thu Fri

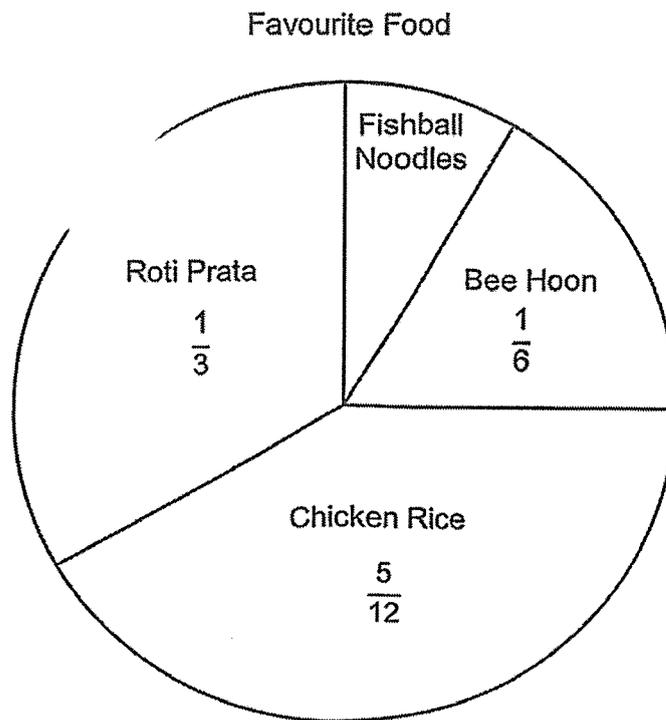


Mon Tue Wed Thu Fri



Mon Tue Wed Thu Fri

14. The pie chart shows the favourite types of food of a group of 60 children. Which statement best represents the data in the pie chart?



- (1) Chicken rice is the least favourite food among the children.
- (2) The number of children who chose bee hoon is twice the number of children who chose roti prata.
- (3) $\frac{1}{10}$ of the children chose fishball noodles as their favourite food.
- (4) 20 children chose roti prata as their favourite food.

15. The table shows the prices of tickets for a concert.

| Type | Monday to Friday | Saturday and Sunday |
|-------|------------------|---------------------|
| Adult | \$31.60 | \$39.60 |
| Child | \$15.90 | \$21.90 |

How much does a family of 2 adults and 3 children have to pay for the concert that will be held on a Saturday?

- (1) \$110.90
- (2) \$126.60
- (3) \$144.90
- (4) \$162.60



NANYANG PRIMARY SCHOOL

**END-OF-YEAR EXAMINATION
2024**

PRIMARY 4

**MATHEMATICS
(BOOKLET B)**

Total Duration for Booklets A and B: 1 hour 45 minutes

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.

Name: _____ ()

Class: Primary 4 ()

Parent's Signature: _____

| | |
|-----------|-------|
| Booklet A | / 30 |
| Booklet B | / 70 |
| Total | / 100 |

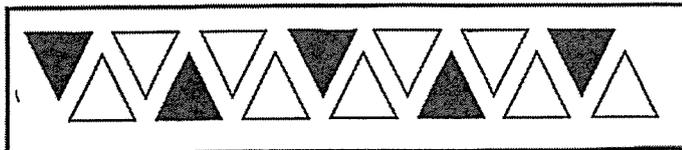
Please sign and return the examination paper the next day. Any queries should be raised at the same time when returning paper.

Questions 16 to 35 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. (40 marks)

16. What is the remainder when 1786 is divided by 9?

Ans: _____

17. What fraction of the triangles shown are black in colour?



Ans: _____

18. Express $\frac{9}{12}$ in its simplest form.

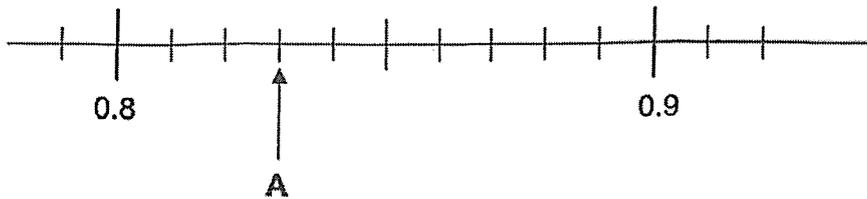
Ans: _____

19. Which two of the fractions below are smaller than $\frac{1}{2}$?

$$\frac{3}{5}, \quad \frac{2}{7}, \quad \frac{4}{8}, \quad \frac{5}{12}$$

Ans: _____ and _____

20. Write the decimal represented by A.



Ans: _____

21. Round 23.45 to the nearest whole number.

Ans: _____

22. Arrange these numbers from the smallest to the greatest.

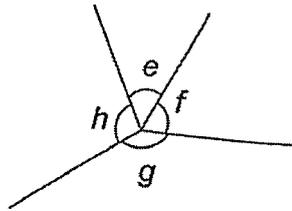
$$\frac{2}{5}, \quad 0.408, \quad 0.048$$

Ans: _____, _____, _____
(smallest) (greatest)

23. $6.3 - 0.74 =$ _____

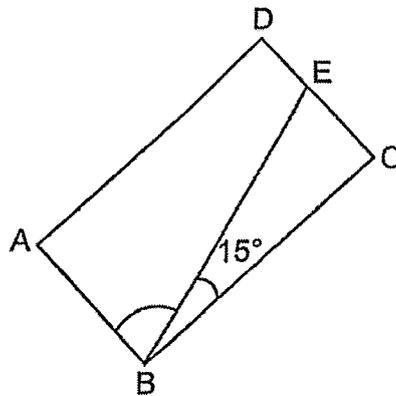
Ans: _____

24. Name the smallest angle.



Ans: \angle _____

25. In the figure below, ABCD is a rectangle. $\angle EBC = 15^\circ$. Find $\angle ABE$.



Ans: _____^o

26. The table shows the number of boys and girls in two Primary 4 classes who took part in two sports events, Long Jump and High Jump.

| Class | Number of boys | | Number of girls | | Total |
|-------|----------------|-----------|-----------------|-----------|-------|
| | Long Jump | High Jump | Long Jump | High Jump | |
| 4A | 9 | 11 | ? | 6 | 40 |
| 4B | 10 | 8 | 10 | 14 | 42 |

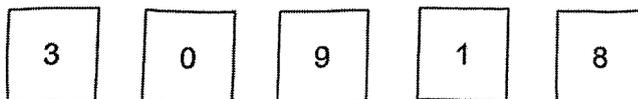
- (a) How many boys in 4B took part in High Jump?

Ans: (a) _____

- (b) How many girls in 4A took part in Long Jump?

Ans: (b) _____

Use all the digits below to form the smallest 5-digit even number. Each digit can only be used once.



Ans: _____

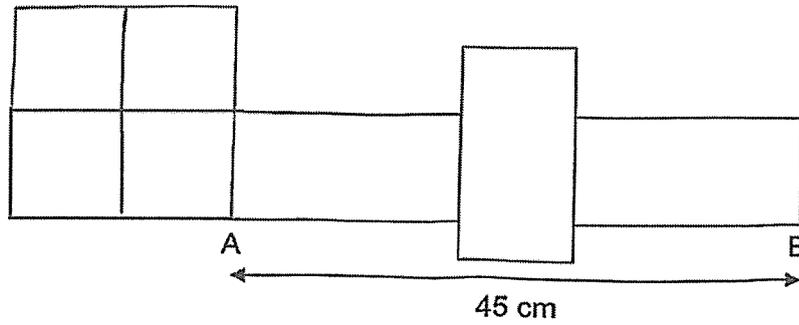
28. The difference between two numbers is 1340. The greater number is 5 times the smaller number. What is the greater number?

Ans: _____

29. Joseph spent \$21.95. He spent \$3.25 more than Muthu. How much did Joseph and Muthu spend altogether?

Ans: \$ _____

30. The figure below is made up of 2 identical squares and 4 identical rectangles. The length of AB is 45 cm. Find the area of a square.

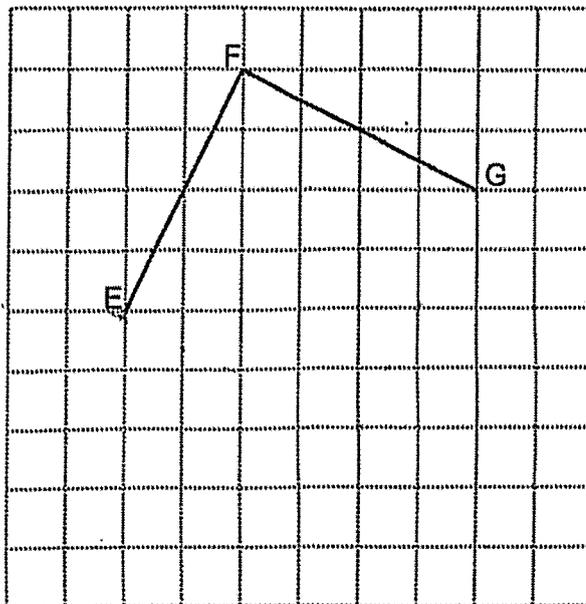


Ans: _____ cm²

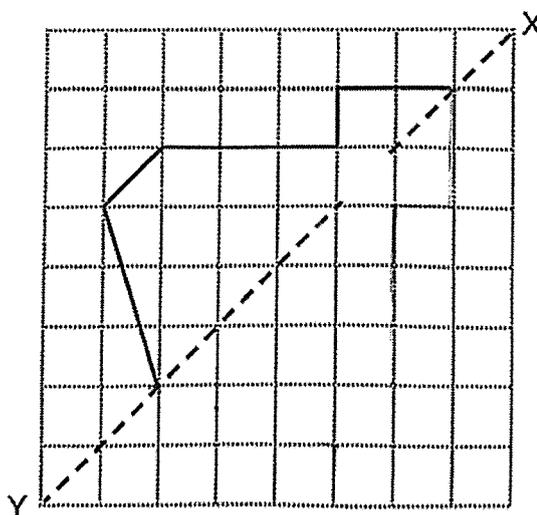
31. Using a protractor and a ruler, draw $\angle PQR = 104^\circ$. Mark and label the angle. The line QR has been drawn for you.



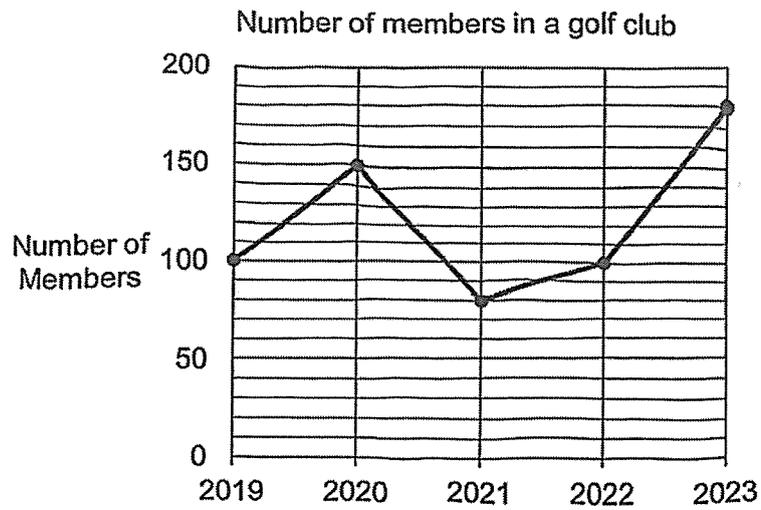
32. In the square grid below, line EF and line FG form two sides of a square EFGH. Complete the drawing of square EFGH.



-
33. Complete the symmetric figure with XY as the line of symmetry.



34. The line graph shows the number of members in a golf club from 2019 to 2023.



- (a) During which 1-year period was there a greatest increase in the number of members in the golf club?

Ans: (a) Year _____ to Year _____

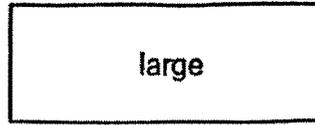
- (b) How many fewer members were there in 2021 than 2020?

Ans: (b) _____

35. Two types of cardboard are sold at the prices shown.



\$3



\$5

Meiling bought a total of 23 cardboards. She paid \$85 altogether. How many small cardboards did she buy?

Ans: _____

For questions 36 to 43, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [] at the end of each question or part-question. (30 marks)

36. The table shows the number of pancakes and tarts sold in a cafe from Friday to Sunday.

| Day | Pancakes | Tarts |
|----------|----------|-------|
| Friday | 45 | 42 |
| Saturday | 52 | 33 |
| Sunday | 48 | 51 |

- (a) On which day were there more tarts sold than pancakes?

Ans: (a) _____ [1]

- (b) Each pancake was sold at \$3. How much more money was collected from the sale of the pancakes on Saturday than on Friday?

Ans: (b) _____ [2]

37. The mass of a box with 5 identical cubes weighed 31.7 kg. 2 cubes were removed from the box. The mass of the box with the remaining number of cubes weighed 20.3 kg. What was the mass of the empty box?

Ans: _____ [3]



James bought an equal number of muffins and cookies for a group of friends. When he gave them 5 muffins each, he had 6 muffins left. When he gave them 7 cookies each, he was short of 4 cookies.

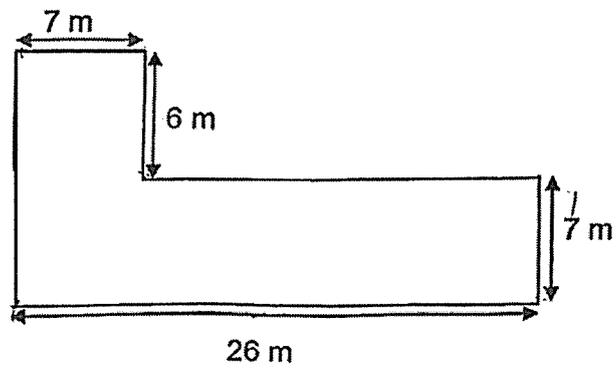
(a) How many muffins and cookies did James buy altogether?

Ans: (a) _____ [3]

(b) How many friends did James give the muffins and cookies to?

Ans: (b) _____ [1]

39. The figure below is made up of straight lines that meet at right angles.



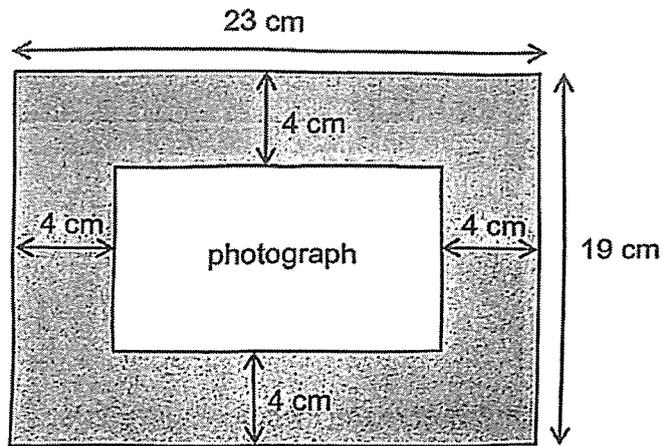
- (a) Find the perimeter of the figure.

Ans: (a) _____ [2]

- (b) Find the area of the figure.

Ans: (b) _____ [2]

40. There is a rectangular piece of cardboard measuring 23 cm by 19 cm. Danissa pasted a photograph at the centre of the cardboard, leaving a border of 4 cm all around it.



- (a) What is the perimeter of the photograph?

Ans: (a) _____ [2]

- (b) What is the area of the photograph?

Ans: (b) _____ [2]

41. Mrs Singh baked some cupcakes for a party. $\frac{2}{7}$ of them were chocolate cupcakes, $\frac{4}{7}$ of them were strawberry cupcakes and the rest were vanilla cupcakes. There were 56 strawberry cupcakes.

(a) How many chocolate cupcakes did Mrs Singh bake?

Ans: (a) _____ [2]

(b) How many more strawberry cupcakes than vanilla cupcakes did Mrs Singh bake?

Ans: (b) _____ [2]

42. Cassie and Eli had some orange juice at first. Cassie gave $\frac{3}{4}$ ℓ of orange juice to Dayan. Eli then gave Cassie $\frac{5}{8}$ ℓ of orange juice. Cassie had $\frac{9}{10}$ ℓ of orange juice in the end.
- (a) How much orange juice did Cassie have at first? Express your answer as a mixed number.

Ans: (a) _____ [2]

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

| Statement | T | F | NPTT |
|---|---|---|------|
| Eli had $\frac{3}{8}$ ℓ of orange juice left. | | | |
| The amount of orange juice Eli gave to Cassie was less than the amount of orange juice Cassie gave to Dayan. | | | |
| Cassie poured the amount of orange juice she had in the end into 2 cups. The amount of orange juice she poured into each cup was more than $\frac{1}{2}$ ℓ. | | | |

[2]

43. There were 76 more belts than caps at first. After 158 belts and 30 caps were sold, there were 3 times as many caps as belts left.

(a) How many belts were there in the end?

Ans: (a) _____ [2]

(b) How many caps were there at first?

Ans: (b) _____ [2]

End of Paper



NANYANG PRIMARY SCHOOL

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2024

PRIMARY 4

MATHEMATICS
(BOOKLET A)

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Name: _____ ()

Class: Primary 4 ()

Questions 1 to 16 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. (30 marks)

1. The value of digit 5 in 75328 is _____.

- (1) 50
- (2) 500
- (3) 5000
- (4) 50 000

↑
thousands

(3)

2. 36 258 rounded to the nearest hundred is _____.

- (1) 36 300
- (2) 36 260
- (3) 36 200
- (4) 36 000

$$36 \overset{2}{5}8 \approx 36 \overset{3}{0}00$$

(1)

3. 3 and 4 are factors of _____.

- (1) 8
- (2) 18
- (3) 24
- (4) 34

$$24 \div 3 = 8$$
$$24 \div 4 = 6$$

(3)

4. How many one-thirds are there in 4 wholes?

- (1) 12
- (2) $\frac{3}{4}$
- (3) $\frac{1}{3}$
- (4) 4

1 whole = $\frac{3}{3}$
Since 1 whole has three-thirds,
4 wholes will have twelve-thirds.

$$4 \times 3 = 12 \quad (1)$$

5. In which of the following does the digit 7 stand for 7 tenths?

- (1) 13.75
- (2) 37.68
- (3) 45.37
- (4) 71.54

$\frac{0.7}{\quad}$

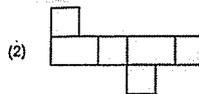
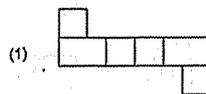
(1)

6. Which figure has perpendicular lines?

- (1) A
- (2) H
- (3) N
- (4) V

(2)

7. Each figure below is made up of 4 identical squares and 2 identical rectangles. Which one has a line of symmetry?



(4)



8. The figure shows a pyramid.



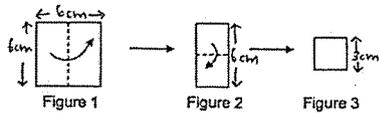
Which of the following is a net of the pyramid?

- (1)
- (2)
- (3)
- (4)

(2)

4

11. A square piece of paper as shown in Figure 1 is folded twice into the shape of a smaller square as shown in Figure 3 below. The area of the smaller square is 9 cm^2 . What is the perimeter of the square piece of paper as shown in Figure 1?



- (1) 12 cm $3 \times 3 = 9$
- (2) 18 cm $3 \times 2 = 6$
- (3) 24 cm $6 \times 4 = 24 \text{ cm}$
- (4) 36 cm

(3)

12. Jun Kai earned \$130 for a day of work. How much did Jun Kai earn for 14 days of work?

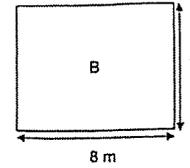
- (1) \$550 $\$130 \times 14 = \1820
- (2) \$650
- (3) \$1720
- (4) \$1820

$$\begin{array}{r} 130 \\ \times 14 \\ \hline 520 \\ + 1300 \\ \hline 1820 \end{array}$$

(4)

6

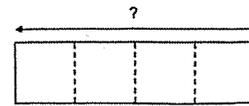
9. The area of rectangle B is 56 m^2 . Its length is 8 m. Find the breadth of rectangle B.



- (1) 6 m $56 \div 8 = 7$
- (2) 7 m
- (3) 8 m
- (4) 9 m

(2)

10. A rectangle is divided into 4 identical squares as shown below. The perimeter of the rectangle is 80 cm. What is the length of the rectangle?



- (1) 16 cm $80 \div 10 = 8$
- (2) 32 cm $8 \times 4 = 32$
- (3) 48 cm
- (4) 64 cm

(2)

5

13. The table below shows the number of customers at a drinks stall from Monday to Friday.

| Monday | Tuesday | Wednesday | Thursday | Friday |
|--------|---------|-----------|----------|--------|
| 450 | 300 | 500 | 250 | 450 |

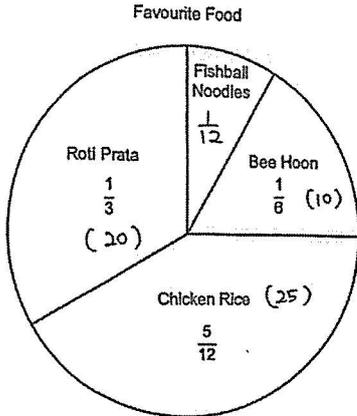
Which one of the line graphs below best represents the information in the table?

- (1)
 * Monday and Friday - same data (450)
 - same point on the line graph
- (2)
 * Wednesday - highest point on the line graph
- (3)
 * Tuesday - in between 250 and 450
 - in between data points of Mon/Fri and Thurs
- (4)
 * Thursday - lowest point on the line graph.

(4)

7

14. The pie chart shows the favourite types of food of a group of 60 children. Which statement best represents the data in the pie chart?



- (1) Chicken rice is the least favourite food among the children. X
- (2) The number of children who chose bee hoon is twice the number of children who chose roti prata. X
- (3) $\frac{1}{10}$ of the children chose fishball noodles as their favourite food. X
- (4) 20 children chose roti prata as their favourite food. ✓ (4)

Bee Hoon $\rightarrow 60 \div 6 = 10$

Roti Prata $\rightarrow 60 \div 3 = 20$

Chicken Rice $\rightarrow 60 \div 12 = 5$
 $5 \times 5 = 25$

$$\frac{1}{3} = \frac{4}{12}$$

$$\frac{1}{6} = \frac{2}{12}$$

$$\frac{4}{12} + \frac{2}{12} + \frac{5}{12} = \frac{11}{12}$$

$$1 - \frac{11}{12} = \frac{1}{12} \text{ (fishball noodles)}$$

15. The table shows the prices of tickets for a concert.

| Type | Monday to Friday | Saturday and Sunday |
|-------|------------------|---------------------|
| Adult | \$31.60 | \$39.60 |
| Child | \$15.90 | \$21.90 |

How much does a family of 2 adults and 3 children have to pay for the concert that will be held on a Saturday?

- (1) \$110.90
- (2) \$128.60
- (3) \$144.90
- (4) \$162.60

$$\$39.60 \times 2 = \$79.20$$

$$\$21.90 \times 3 = \$65.70$$

$$\$65.70 + \$79.20 = \$144.90$$

$$\begin{array}{r} 1 \quad 1 \quad 2 \\ 39.6 \\ \times 2 \\ \hline 79.2 \end{array} \quad \begin{array}{r} 2 \\ 21.9 \\ \times 3 \\ \hline 65.7 \end{array} \quad (3)$$

$$\begin{array}{r} 1 \\ 79.20 \\ + 65.70 \\ \hline 144.90 \end{array}$$



NANYANG PRIMARY SCHOOL
END-OF-YEAR EXAMINATION
 2024

PRIMARY 4
MATHEMATICS
 (BOOKLET B)

Total Duration for Booklets A and B: 1 hour 45 minutes

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.

Name: _____ ()

Class: Primary 4 ()

Parent's Signature: _____

| | |
|-----------|-------|
| Booklet A | / 30 |
| Booklet B | / 70 |
| Total | / 100 |

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 35 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. (40 marks)

16. What is the remainder when 1786 is divided by 9?

$$\begin{array}{r} 198R4 \\ 9 \overline{) 1786} \\ \underline{-9} \\ 88 \\ \underline{-81} \\ 76 \\ \underline{-72} \\ 4 \end{array}$$

Ans: 4

17. What fraction of the triangles shown are black in colour?



Ans: $\frac{5}{14}$

18. Express $\frac{9}{12}$ in its simplest form.

$$\frac{9 \div 3}{12 \div 3} = \frac{3}{4}$$

Ans: $\frac{3}{4}$

19. Which two of the fractions below are smaller than $\frac{1}{2}$?

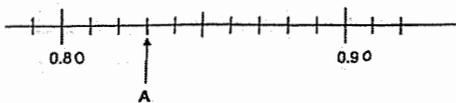
$\frac{3}{5}$ $\frac{2}{7}$ $\frac{4}{8}$ $\frac{5}{12}$

$\frac{3}{5} = \frac{6}{10}$ $\frac{1}{2} = \frac{7}{14}$ $\frac{1}{2} = \frac{4}{8}$ $\frac{1}{2} = \frac{6}{12}$
 $\frac{1}{2} = \frac{5}{10}$ $\frac{2}{7} = \frac{4}{14}$ $\frac{1}{2} > \frac{5}{12}$

$\frac{3}{5} > \frac{1}{2}$ $\frac{1}{2} > \frac{2}{7}$

Ans: $\frac{2}{7}$ and $\frac{5}{12}$

20. Write the decimal represented by A.



Ans: 0.83

21. Round 23.45 to the nearest whole number.

Ans: 23

22. Arrange these numbers from the smallest to the greatest.

$\frac{2}{5}$, 0.408, 0.048

$$\frac{2 \times 2}{5 \times 2} = \frac{4}{10} = 0.4$$

$\frac{2}{5}$ must be written, not 0.4

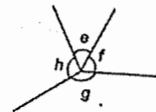
Ans: 0.048 (smallest), $\frac{2}{5}$, 0.408 (greatest)

23. $6.3 - 0.74 =$

$$\begin{array}{r} 6.30 \\ - 0.74 \\ \hline 5.56 \end{array}$$

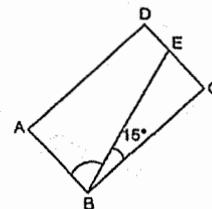
Ans: 5.56

24. Name the smallest angle.



Ans: ∠ e

25. In the figure below, ABCD is a rectangle. $\angle EBC = 15^\circ$. Find $\angle ABE$.



$$90^\circ - 15^\circ = 75^\circ$$

Ans: 75

26. The table shows the number of boys and girls in two Primary 4 classes who took part in two sports events, Long Jump and High Jump.

| Class | Number of boys | | Number of girls | | Total |
|-------|----------------|-----------|-----------------|-----------|-------|
| | Long Jump | High Jump | Long Jump | High Jump | |
| 4A | 9 | 11 | 7 | 6 | 40 |
| 4B | 10 | 8 | 10 | 14 | 42 |

- (a) How many boys in 4B took part in High Jump?

Ans: (a) 8

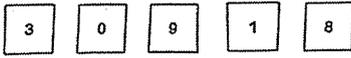
- (b) How many girls in 4A took part in Long Jump?

$$9 + 11 + 6 = 26$$

$$40 - 26 = 14$$

Ans: (b) 14

27. Use all the digits below to form the smallest 5-digit even number. Each digit can only be used once.



Digit in ones place must be even.

| | | | | |
|-----------|-----------|----------|------|------|
| 1 | 0 | 3 | 9 | 8 |
| Thousands | Thousands | Hundreds | Tens | ones |

Ans: 10398

4

28. The difference between two numbers is 1340. The greater number is 5 times the smaller number. What is the greater number?

Greater

Smaller $\xleftarrow{1340}$

$$1340 \div 4 = 335$$

$$335 \times 5 = 1675$$

$$\begin{array}{r} 335 \\ 4 \overline{)1340} \\ \underline{12} \\ 14 \\ \underline{12} \\ 20 \\ \underline{20} \\ 0 \end{array}$$

Ans: 1675

29. Joseph spent \$21.95. He spent \$3.25 more than Muthu. How much did Joseph and Muthu spend altogether?

$$\$21.95 - \$3.25 = \$18.70$$

$$\$21.95 + \$18.70 = \$40.65$$

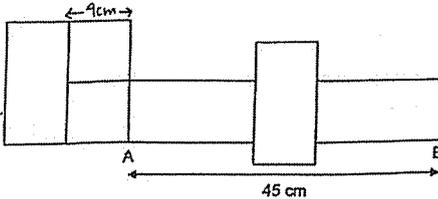
$$\begin{array}{r} 21.95 \\ - 3.25 \\ \hline 18.70 \end{array}$$

$$\begin{array}{r} 21.95 \\ + 18.70 \\ \hline 40.65 \end{array}$$

Ans: \$ 40.65

5

30. The figure below is made up of 2 identical squares and 4 identical rectangles. The length of AB is 45 cm. Find the area of a square.

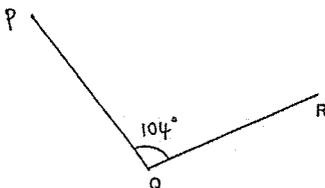


$$45 \div 5 = 9$$

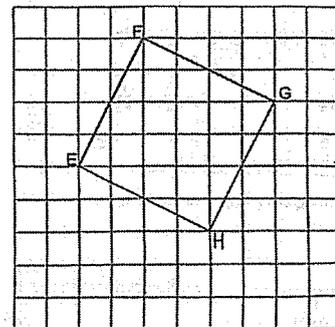
$$9 \times 9 = 81$$

Ans: 81 cm²

31. Using a protractor and a ruler, draw $\angle PQR = 104^\circ$. Mark and label the angle. The line QR has been drawn for you.

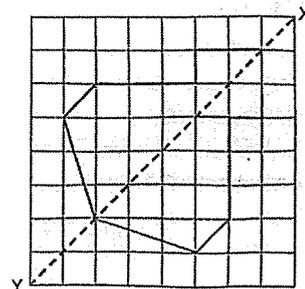


32. In the square grid below, line EF and line FG form two sides of a square EFGH. Complete the drawing of square EFGH.

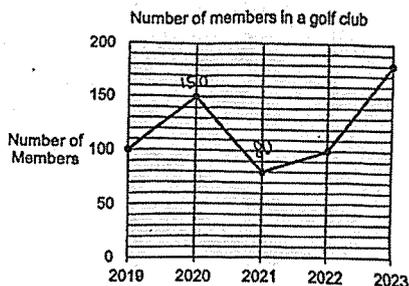


Point H must be labelled.

33. Complete the symmetric figure with XY as the line of symmetry.



34. The line graph shows the number of members in a golf club from 2019 to 2023.



(a) During which 1-year period was there a greatest increase in the number of members in the golf club?

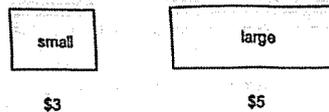
Ans: (a) Year 20 22 to Year 2023

(b) How many fewer members were there in 2021 than 2020?

$$150 - 80 = 70$$

Ans: (b) 70

35. Two types of cardboard are sold at the prices shown.



Melling bought a total of 23 cardboards. She paid \$85 altogether. How many small cardboards did she buy?

| No. of Small cardboards | Price of Small cardboards | No. of large cardboards | Price of large cardboards | Total no. of cardboards | Total price of cardboards |
|-------------------------|---------------------------|-------------------------|---------------------------|-------------------------|---------------------------|
| 11 | $11 \times \$3 = \33 | 12 | $12 \times \$5 = \60 | $11 + 12 = 23$ | $\$60 + \$33 = \$93$ |
| 13 | $13 \times \$3 = \39 | 10 | $10 \times \$5 = \50 | $13 + 10 = 23$ | $\$39 + \$50 = \$89$ |
| 15 | $15 \times \$3 = \45 | 8 | $8 \times \$5 = \40 | $15 + 8 = 23$ | $\$45 + \$40 = \$85$ |

Alternative solution :

Assume all cardboards are small cardboards.

$$\begin{aligned} 23 \times \$3 &= \$69 \\ \$85 - \$69 &= \$16 \\ \$5 - \$3 &= \$2 \\ \$16 \div \$2 &= 8 \\ 23 - 8 &= 15 \end{aligned}$$

OR

Assume all cardboards are large cardboards.

$$\begin{aligned} 23 \times \$5 &= \$115 \\ \$115 - \$85 &= \$30 \\ \$5 - \$3 &= \$2 \\ \$30 \div \$2 &= 15 \end{aligned}$$

Ans: 15

For questions 36 to 43, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [] at the end of each question or part-question. (30 marks)

36. The table shows the number of pancakes and tarts sold in a cafe from Friday to Sunday.

| Day | Pancakes | Tarts |
|----------|----------|-------|
| Friday | 45 | 42 |
| Saturday | 52 | 33 |
| Sunday | 48 | 51 |

(a) On which day were there more tarts sold than pancakes?

Ans: (a) Sunday [1]

(b) Each pancake was sold at \$3. How much more money was collected from the sale of the pancakes on Saturday than on Friday?

$$\text{Saturday} \rightarrow 52 \times \$3 = \$156$$

$$\text{Friday} \rightarrow 45 \times \$3 = \$135$$

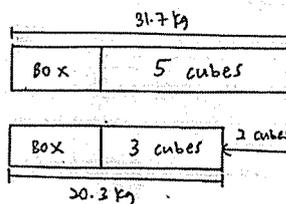
$$\$156 - \$135 = \$21$$

$$\begin{array}{r} 52 \\ \times 3 \\ \hline 156 \end{array}$$

$$\begin{array}{r} 45 \\ \times 3 \\ \hline 135 \end{array}$$

Ans: (b) \$ 21 [2]

37. The mass of a box with 5 identical cubes weighed 31.7 kg. 2 cubes were removed from the box. The mass of the box with the remaining number of cubes weighed 20.3 kg. What was the mass of the empty box?



$$\text{Mass of 2 cubes} \rightarrow 31.7 - 20.3 = 11.4$$

$$\text{Mass of 1 cube} \rightarrow 11.4 \div 2 = 5.7$$

$$\text{Mass of 3 cubes} \rightarrow 5.7 \times 3 = 17.1$$

$$\begin{aligned} \text{Mass of empty} &\rightarrow 20.3 - 17.1 \\ \text{box} &= 3.2 \end{aligned}$$

$$\begin{array}{r} 31.7 \\ - 20.3 \\ \hline 11.4 \\ \hline 5.7 \\ 2 \overline{) 11.4} \\ - 10 \\ \hline 14 \\ - 14 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 25.7 \\ \times 3 \\ \hline 17.1 \end{array}$$

$$\begin{array}{r} 20.3 \\ - 17.1 \\ \hline 3.2 \end{array}$$

Ans: 3.2 kg [3]

38. James bought an equal number of muffins and cookies for a group of friends. When he gave them 5 muffins each, he had 6 muffins left. When he gave them 7 cookies each, he was short of 4 cookies.

(a) How many muffins and cookies did James buy altogether?

| | | | | | | | | |
|----------------|----|----|----|----|----|----|----|----|
| Multiples of 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 |
| + 6 | 11 | 16 | 21 | 26 | 31 | 36 | 41 | 46 |
| Multiples of 7 | 7 | 14 | 21 | 28 | 35 | | | |
| - 4 | 3 | 10 | 17 | 24 | 31 | | | |

$$31 + 31 = 62$$

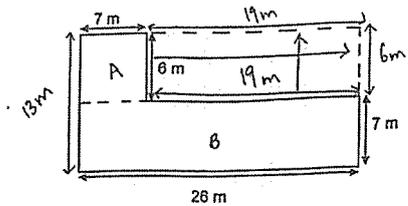
Ans: (a) 62 [3]

(b) How many friends did James give the muffins and cookies to?

Ans: (b) 5 [1]

12

9. The figure below is made up of straight lines that meet at right angles.



(a) Find the perimeter of the figure.

$$(26 + 13) \times 2 = 78$$

OR

$$26 + 13 + 7 + 6 + 19 + 7 = 78$$

Ans: (a) 78m [2]

(b) Find the area of the figure.

$$\text{Area of A} \rightarrow 7 \times 6 = 42$$

$$\text{Area of B} \rightarrow 26 \times 7 = 182$$

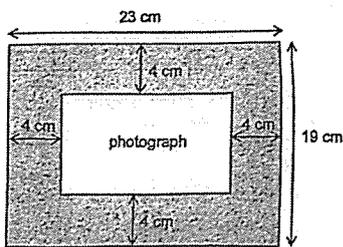
$$\text{Total area} \rightarrow 182 + 42 = 224$$

$$\begin{array}{r} 426 \\ \times 7 \\ \hline 182 \\ \hline 182 \\ + 42 \\ \hline 224 \end{array}$$

Ans: (b) 224 m² [2]

13

40. There is a rectangular piece of cardboard measuring 23 cm by 19 cm. Danissa pasted a photograph at the centre of the cardboard, leaving a border of 4 cm all around it.



(a) What is the perimeter of the photograph?

$$23 - 4 - 4 = 15$$

$$19 - 4 - 4 = 11$$

$$(15 + 11) \times 2 = 52$$

Ans: (a) 52cm [2]

(b) What is the area of the photograph?

$$15 \times 11 = 165$$

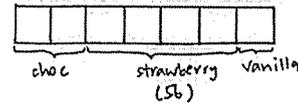
$$\begin{array}{r} 15 \\ \times 11 \\ \hline 15 \\ + 150 \\ \hline 165 \end{array}$$

Ans: (b) 165 cm² [2]

14

41. Mrs Singh baked some cupcakes for a party. $\frac{2}{7}$ of them were chocolate cupcakes, $\frac{4}{7}$ of them were strawberry cupcakes and the rest were vanilla cupcakes. There were 56 strawberry cupcakes.

(a) How many chocolate cupcakes did Mrs Singh bake?



$$56 \div 4 = 14$$

$$14 \times 2 = 28$$

Ans: (a) 28 [2]

(b) How many more strawberry cupcakes than vanilla cupcakes did Mrs Singh bake?

$$1 \text{ unit} \rightarrow 14$$

$$3 \text{ units} \rightarrow 14 \times 3 = 42$$

OR

$$56 - 14 = 42$$

Ans: (b) 42 [2]

15

42. Cassie and Eli had some orange juice at first. Cassie gave $\frac{3}{4}$ l of orange juice to Dayan. Eli then gave Cassie $\frac{5}{8}$ l of orange juice. Cassie had $\frac{9}{10}$ l of orange juice in the end.

(a) How much orange juice did Cassie have at first? Express your answer as a mixed number.

$$\frac{9 \times 4}{10 \times 4} - \frac{5 \times 5}{8 \times 5} = \frac{36}{40} - \frac{25}{40}$$

$$= \frac{11}{40}$$

$$\frac{11}{40} + \frac{3 \times 10}{4 \times 10} = \frac{11}{40} + \frac{30}{40} = \frac{41}{40} = 1\frac{1}{40}$$

Ans: (a) $1\frac{1}{40}$ l [2]

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

| Statement | T | F | NPTT |
|---|---|---|------|
| Eli had $\frac{3}{8}$ l of orange juice left. | | | ✓ |
| The amount of orange juice Eli gave to Cassie was less than the amount of orange juice Cassie gave to Dayan. | ✓ | | |
| Cassie poured the amount of orange juice she had in the end into 2 cups. The amount of orange juice she poured into each cup was more than $\frac{1}{2}$ l. | | ✓ | |

All correct (2 marks)

2 questions correct (1 mark)

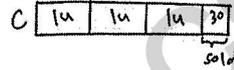
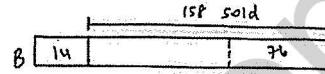
Less than 2 questions correct (1 mark)

[2]

16

43. There were 76 more belts than caps at first. After 158 belts and 30 caps were sold, there were 3 times as many caps as belts left.

(a) How many belts were there in the end?



$$158 - 30 - 76 = 52$$

$$52 \div 2 = 26$$

Ans: (a) 26 [2]

(b) How many caps were there at first?

$$26 \times 3 = 78$$

$$78 + 30 = 108$$

Ans: (b) 108 [2]

End of Paper

17