NAN HUA PRIMARY SCHOOL

NON-WEIGHTED ASSESSMENT 2 2024

PRIMARY 6

MATHEMATICS

PAPER 1

(BOOKLET A)

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS TO CANDIDATES

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

Name : _____ ( )

Form Class : 6_____ **Teaching Group: 6M**_____

Date : 7 May 2024

This booklet consists of 7 printed pages and 1 blank page.

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 Which of the following is thirty-eight thousand and thirty in numerals?

(1) 3830

(2) 38 030

(3) 38 300

(4) 380 030

2 What are the common factors of 18 and 81?

(1) 3 and 6

(2) 3 and 9

(3) 6 and 18

(4) 9 and 18

3 I am a multiple of 6 and a factor of 24. What number am I?

(1) 8

(2) 2

(3) 3

(4) 12

4 Arrange the following numbers from the largest to the smallest.

8.03	8.3	8

	Largest		Smallest
(1)	8	8.03	8.3
(2)	8.3	8	8.03
(3)	8.3	8.03	8
(4)	8.03	8.3	8

5 $7 + \frac{7}{10} + \frac{7}{1000} =$ _____.

(1) 7.07

(2) 7.077

(3) 7.707

(4) 7.77

6 Express $8\frac{3}{50}$ as a decimal.

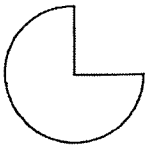
(1) 8.03

(2) 8.06

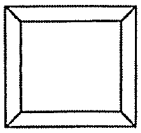
(3) 8.3

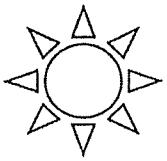
(4) 8.6

7 Which figure below has only one line of symmetry?

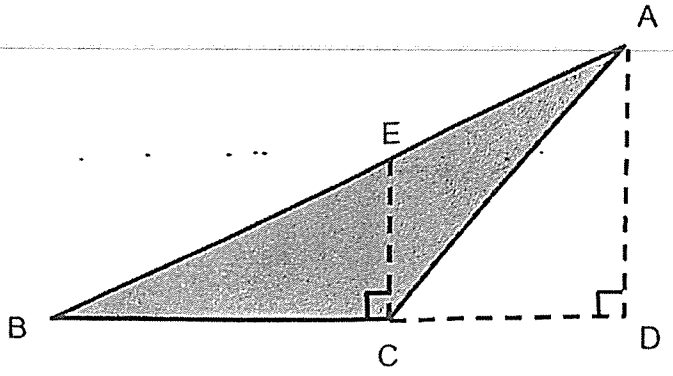
(1) 

(2) 

(3) 

(4) 

8 Given that the base of triangle ABC is BC, find the height that is related to the base BC.



(1) CE

(2) AD

(3) AC

(4) AB

9 What is the missing number in the box?

$$\frac{8}{12} = \frac{\square}{9}$$

(1) 6

(2) 5

(3) 3

(4) 4

10 Mary bought a pizza. She ate $\frac{1}{4}$ of the pizza and her brother ate $\frac{1}{12}$ of the pizza. What fraction of the pizza was left?

(1) $\frac{1}{6}$

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

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

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

11 Ken used $\frac{4}{7}$ of his money to buy 8 donuts and 4 pies. The cost of 4 donuts was the same as that of 2 pies. What was the most number of pies that Ken could buy with the amount of money he had left?

(1) 8

(2) 2

(3) 6

(4) 4

12 Zach kept his red and blue marbles in two boxes.

The ratio of the number of red marbles to blue marbles in the first box was 1 : 5 and it was 1 : 2 in the second box. The two boxes contained the same number of marbles.

What fraction of Zach's marbles were red marbles?

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

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

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

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

13 $\frac{4}{9}$ of the people at a carnival were adults and the rest were children. The number of boys was twice the number of girls. What was the ratio of the number of boys to the number of adults?

(1) 1 : 2

(2) 2 : 1

(3) 6 : 5

(4) 5 : 6

14

Container	Number of markers	Percentage of markers which are blue
A	200	6%
B	400	12%

What percentage of the total number of markers in container A and B are blue?

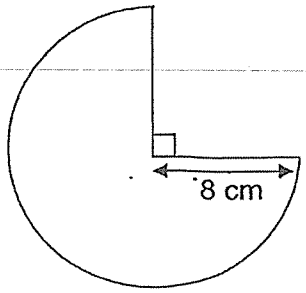
(1) 6%

(2) 10%

(3) 12%

(4) 18%

15 The figure shows part of a circle. Find the perimeter of the following figure. Leave your answer in terms of π.



(1) $(6\pi + 16)$ cm

(2) $(12\pi + 16)$ cm

(3) $(16\pi + 16)$ cm

(4) $(48\pi + 16)$ cm

NAN HUA PRIMARY SCHOOL

NON-WEIGHTED ASSESSMENT 2 2024

PRIMARY SIX

MATHEMATICS

PAPER 1

(BOOKLET B)

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Use dark blue or black ball point pen to write your answers in the space provided for each question.
6. Do not use correction tape/ fluid/ highlighter.
7. The use of calculators is NOT allowed.

Marks Obtained

Section		Maximum Marks	Actual Marks
Paper 1	Booklet A	20	
	Booklet B	25	
Paper 2		55	
Total		100	

Name : _____ ( )

Form Class : 6_____ **Teaching Group: 6M**_____

Date : 7 May 2024

This booklet consists of 8 printed pages.

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 $7.5 \div 30$.

Ans : _____

17 Write down the common multiple of 6 and 8 that is smaller than 40.

Ans: _____

18 Find the value of $12 \times \frac{8}{9}$. Leave your answer as a mixed number in its simplest form.

Ans: _____

Please do not write in the margin.

19 Find the value of $\frac{3}{4} \div 12$. Leave your answer in its simplest form.

Ans: _____

20 Find the value of $22 - 12 \div (4 + 2) \times 4$.

Ans: _____

Please do not write in the margin.

(Go on to the next page)

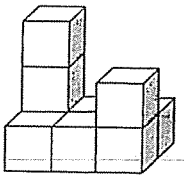
Questions **21** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For question which require units, give your answers in the units stated.

(20 marks)

21 Using the line AB provided below, construct $\angle BAC = 80°$.

A ——————— B

22 The solid shown below is made of 1-cm cubes. What is the volume of the solid?



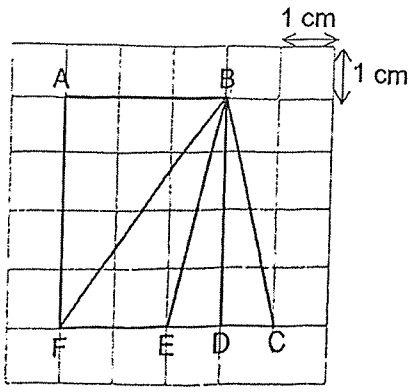
Ans : _____ cm^3

23 6000 ml of juice was poured into 8 identical bottles equally. How much juice was there in one bottle?

Ans : _____

Please do not write in the margin

24 Look at the figure below.



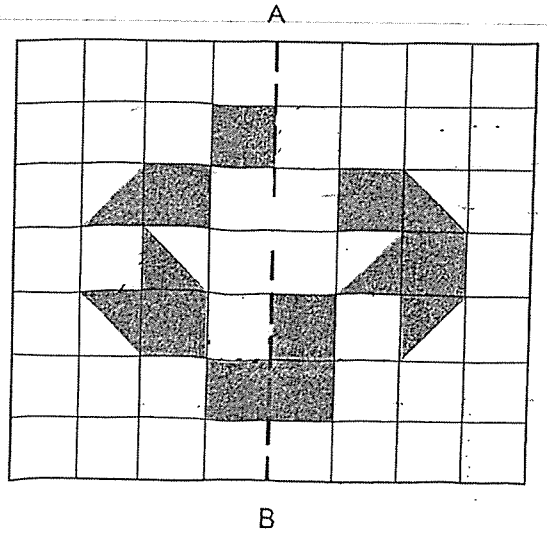
(a) What is the area of triangle BEF?

Ans : (a)_____ cm^2

(b) Which triangle has an area twice the area of triangle BEF?

Ans : (b) Δ_____

25 The figure is made up of identical squares and identical triangles. Shade 4 more squares to form a symmetric figure with AB as the line of symmetry.



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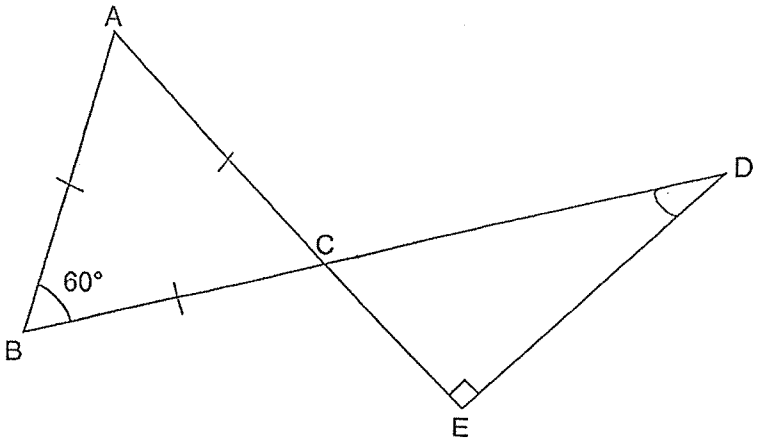
26 The figure below is made up of an equilateral triangle ABC and a right-angled triangle, CDE. ACE and BCD are straight lines. Find ∠CDE.



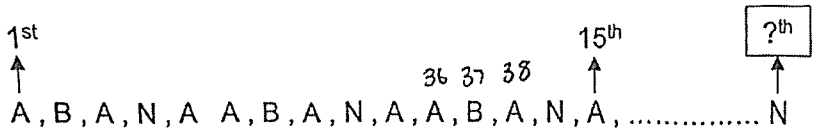
Ans : _____ °

27 Ivan started revising for a test at 8.05 a.m. while Kevin started 10 minutes later. Ivan completed 25 minutes earlier than Kevin who completed it at 9.20 a.m.. How much more time did Kevin spend on his revision than Ivan?

Ans : _____ min

Please do not write in the margin.

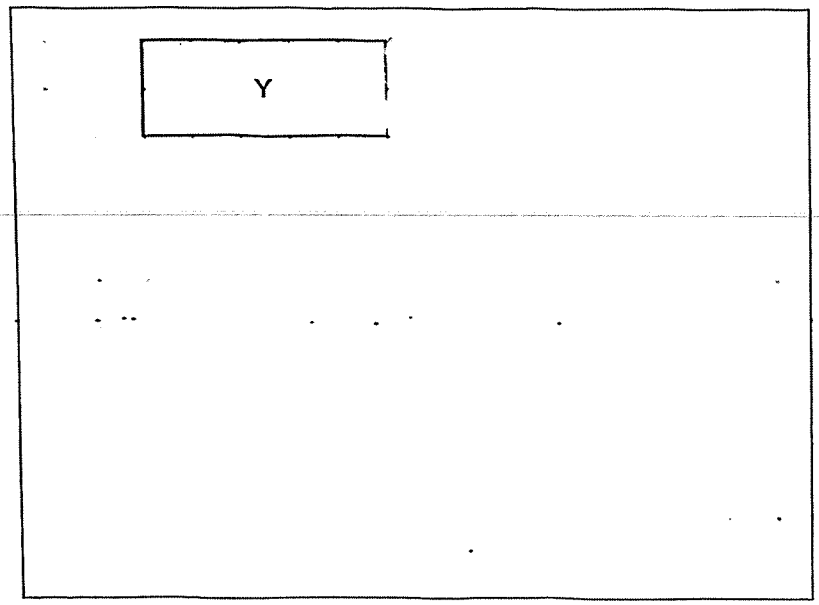
28 A pattern is formed using the letters A, B and N. The first 15 letters are shown.



The letter A appears 23 times in the pattern. What is the greatest possible number of letters in the pattern?

Ans : _____

29 A rectangle Y is drawn by joining dots on the square grid below with four straight lines. Lines must meet at the dots in the given grid. In the same way, draw a rectangle, with the same area as Y, that gives the largest possible perimeter. Label the rectangle R.



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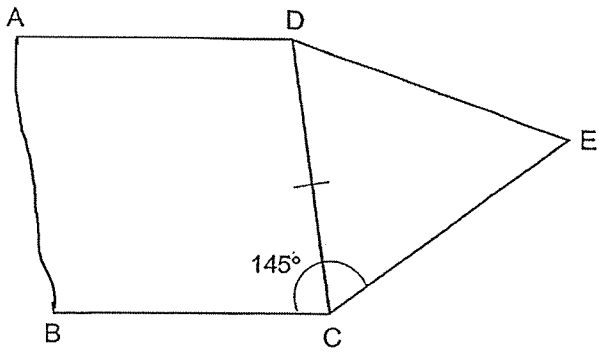
30 In the figure below, ABCD is a rhombus. ΔCDE is an isosceles triangle.

$\angle BCE = 145°$.



Each of the statement below 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
$\angle BAD + \angle DEC = 145°$			
$\angle ABC = 125°$			

Please do not write in the margin

End of Paper

NAN HUA PRIMARY SCHOOL

NON-WEIGHTED ASSESSMENT 2 2024

PRIMARY SIX

MATHEMATICS

PAPER 2

Time: 1 hour 30 minutes

INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Use dark blue or black ball point pen to write your answers in the space provided for each question.
6. Do not use correction tape/ fluid/ highlighter.
7. The use of calculators is allowed.

Marks Obtained

Section	Maximum Marks	Actual Marks
Paper 2	55	

Name : _____ ( )

Form Class : 6_____ **Teaching Group: 6M**_____

Date : 7 May 2024

This booklet consists of 15 printed pages and 1 blank page.

Questions **1** to **5** carry 2 marks each. Show your working clearly and write your answers in the space provided. For questions which require units, give your answers in the units stated. (10 marks)

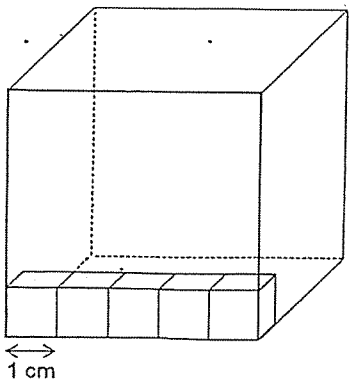
1 The rate for parcel postage at a post office is shown in the table below.

Mass step not over	100 g	250 g	500 g	Every additional 100 g
Postage	$2.50	$3.90	$5.20	$1

Alice posted a parcel that weighed 660g. How much did she pay for the postage?

Ans: $ _____

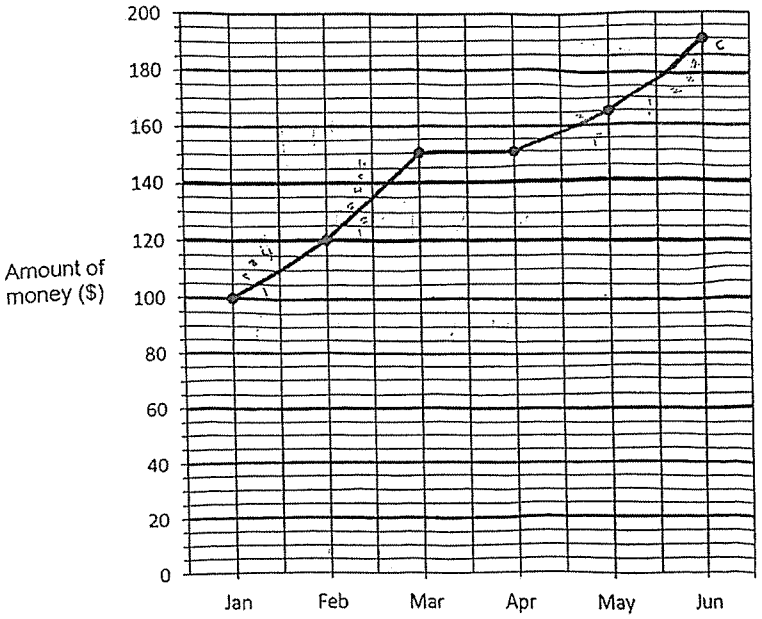
2 The box below is filled with some 1-cm cubes. The box is a cube. What is the volume of the box?



Ans: _____ cm^3

Please do not write in the margin.

3 The line graph shows the amount of money Siti had in her bank on the last day every month.



Every month, Siti tried to deposit some money into the bank without making any withdrawal.

(a) In which month did she not make any deposit?

Ans: _____

(b) In which month did she deposit the most amount of money?

Ans: _____

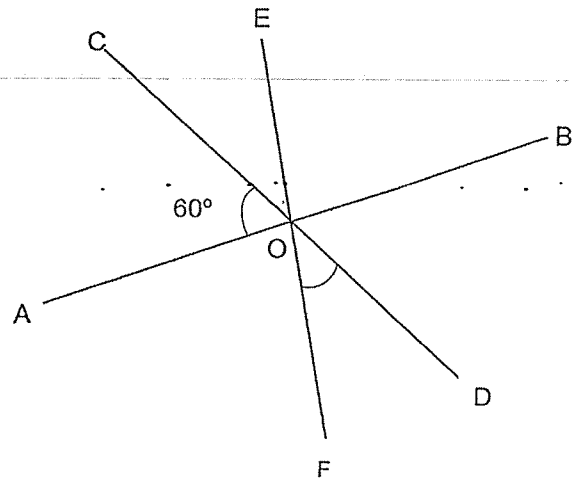
Please do not write in the margin.

4 The average mass of 3 girls is 28 kg. A fourth girl joined the group and the average mass becomes 29 kg. What is the mass of the fourth girl?

Ans: _____ kg

Please do not write in the margin.

5 In the figure below, AB, CD and EF are straight lines. ∠AOC is 60°. ∠BOE is twice of ∠FOD. What is ∠FOD?



Ans: _____ °

For questions **6** to **17**, 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. (45 marks)

6 Bala had some muffins for sale. In the morning, he sold $\frac{1}{3}$ of the muffins. In the afternoon, he sold $\frac{2}{5}$ of the remaining muffins. After that, there were 42 muffins left. How many muffins did Bala have at first?

Ans: _____ [3]

7 Ivan and Helen shared a sum of money in the ratio of 3 : 2. When Ivan gave $21 to Helen, the ratio of Ivan's amount of money to Helen's amount of money became 2 : 13. How much money did Ivan have at first?

Ans: _____ [3]

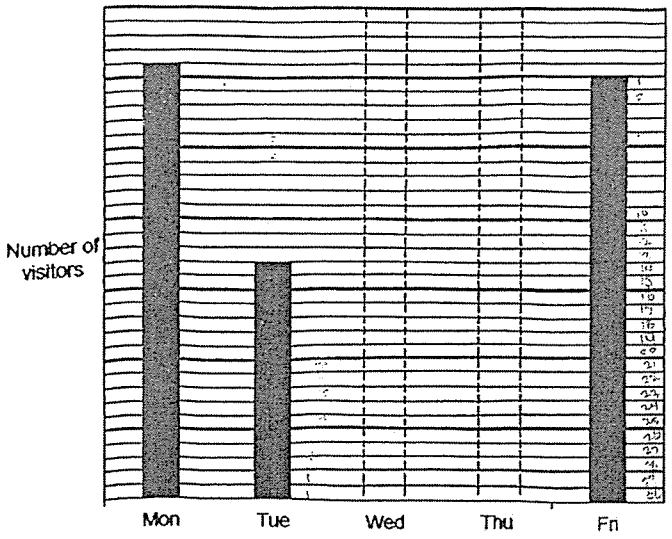
Please do not write in the margin.

8 Karen paid $54 for 15 cupcakes after a 25% discount. How many cupcakes could she have bought with the same amount of money without the discount?

Please do not write in the margin.

Ans: _____ [4]

9 The bar graph shows the number of visitors to an art gallery.



(a) There were 56 more visitors on Monday than Tuesday. How many visitors were there at the art gallery on Monday?

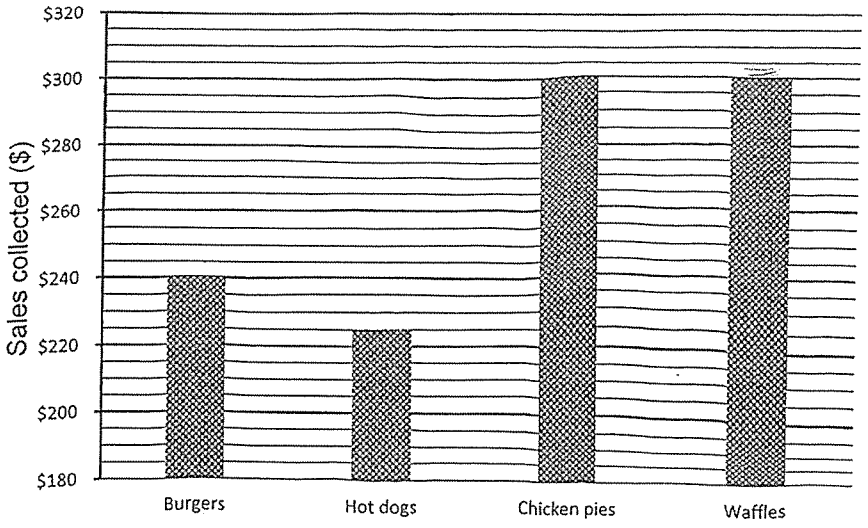
Ans: (a) _____ [1]

(b) The average number of visitors at the art gallery from Wednesday to Friday was 75. There were more visitors on Wednesday than on Thursday. Given that the difference between the number of visitors on Wednesday and Thursday was the smallest possible number, what was the number of visitors on Thursday?

Ans: (b) _____ [2]

Please do not write in the margin.

10 The bar graph shows the sales of four food items at a fun fair.



The table shows the prices of the food items.

Type of food items	Price per item
Burger	$5
Hot dog	$3
Chicken pie	$4
Waffles	$3

Please do not write in the margin.

(a) Find the number of hot dogs sold.

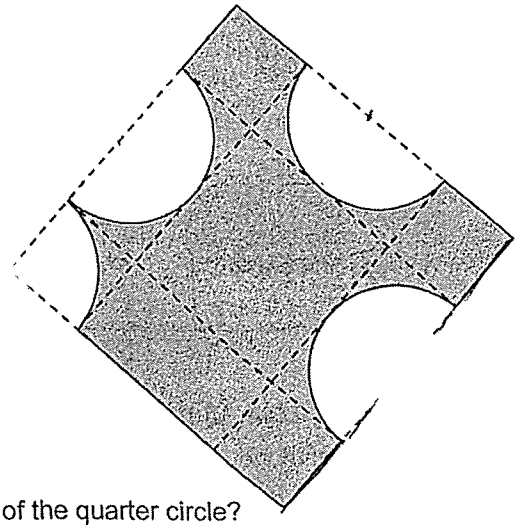
Ans: (a) _____ [1]

(b) The total number sold for two of the food items was the same.
Which were the two food items?

Ans: (b) _____ and _____ [2]

11 Tom had a square piece of paper with an area of 64 cm^2. He cut out one quarter circle and three identical semicircles from it as shown below. The quarter circle had the same radius as each semicircle.

(Take $\pi = 3.14$)



(a) What is the radius of the quarter circle?

Ans: (a) _____ [2]

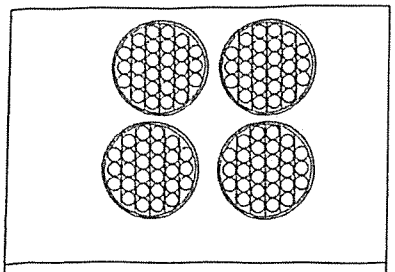
(b) What is the area of the remaining piece of paper?

Ans: (b) _____ [2]

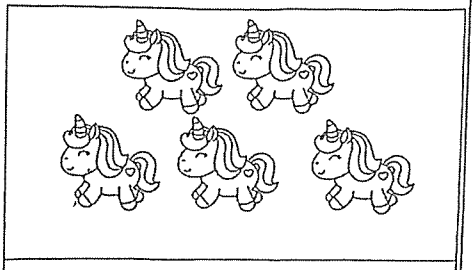
Please do not write in the margin.

(Go on to the next page)

12 The prices of pop-its and unicorn soft toys are as shown below.
The items are sold only in sets.



$4.50 for one set of 4 pop-its



$18 for a set of 5 unicorn soft toys

(a) If Ms Chou wants to buy 18 pop-its and 22 unicorn soft toys, what is the least amount of money that she needs to spend on both items?

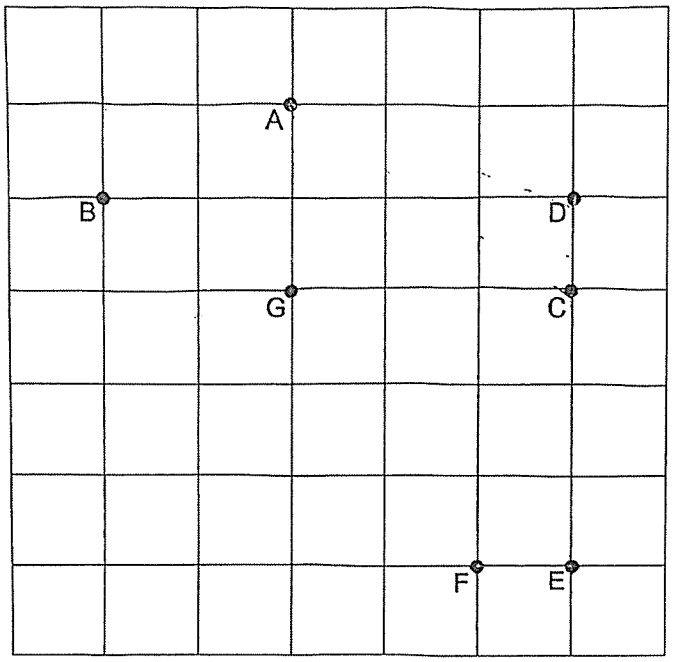
Ans: (a) _____ [2]

(b) She is given a 10% discount for all the items bought. How much will she pay?

Ans: (b) _____ [2]

Please do not write in the margin.

13 A, B, C, D, E, F, G are points on the square grid.



(a) **(i)** Which one of the points shown on the square grid is south-east of point B?

Ans: (ai)_____ _____ [1]

(ii) Which direction is Point B from Point D?

Ans: (aii)_____ [1]

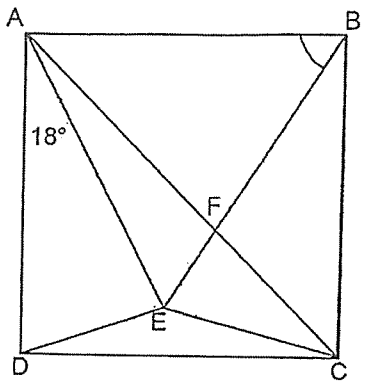
(b) Gabriel stands at a point which is facing Point E on the square grid. He makes a 135°-turn in an anti-clockwise direction and faces Point A. Which Point is he standing on?

Ans: (b) _____ [1]

Please do not write in the margin.

(Go on to the next page)

14 ABCD is a square. BFE and AFC are straight lines.
BC = BE and ∠EAF = 18°.



(a) Find ∠ABE.

Ans: (a) _____ [2]

(b) Find ∠BEC.

Ans: (b) _____ [2]

Please do not write in the margin.

15 Peter and John were paid a total of $3390 for the work they did. Peter was paid $1830 more than John.

(a) How much was Peter paid?

Ans: (a) _____ [1]

(b) Peter and John were paid based on the number of days they worked.

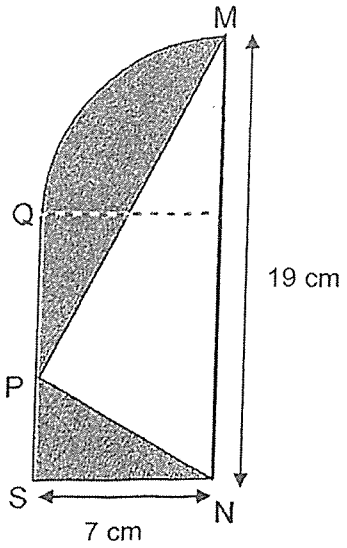
Peter worked 3 times as many days as John.
Peter was paid $5 more than John per day.

How many days did Peter work?

Ans: (b) _____ [3]

Please do not write in the margin.

16 In the figure, QM is the arc of a quarter circle. MNP is a triangle and MN is perpendicular to SN. SN = 7 cm and MN = 19 cm.



(Take $\pi = \frac{22}{7}$)

(a) Find the total area of the shaded parts.

Ans: (a) _____ [3]

(b) The perimeter of the unshaded triangle is 43.5 cm. Find the perimeter of the shaded parts.

Ans: (b) _____ [2]

Please do not write in the margin.

17 The table shows the charges for water consumption.

Amount of water used	Charge
Up to 40 m^3	117 cents per m^3
Above 40 m^3	140 cents per m^3

(a) John's family used 32 m^3 of water in March.
How much did his family pay?

Ans: (a) _____ [2]

(b) Simon's family spent $66.40 on water consumption in April.
How much water did his family use? (Give your answer in m^3)

Ans: (b) _____ [3]

Please do not write in the margin.

End of Paper

ANSWER KEY

YEAR : 2024

LEVEL: PRIMARY 6

SCHOOL: NAN HUA PRIMARY SCHOOL

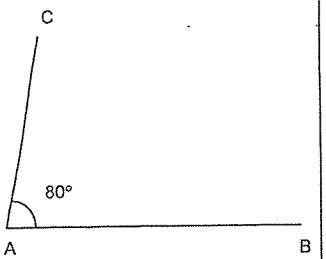
SUBJECT: MATHEMATICS

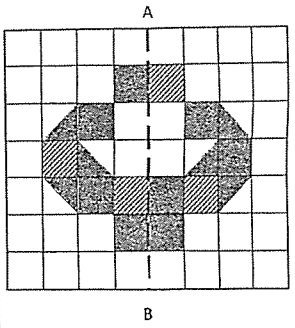
TERM: WA2

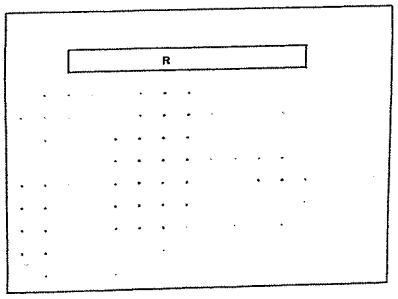
PAPER 1 BOOKLET A

Q1	2	Q2	2	Q3	4	Q4	3	Q5	3
Q6	2	Q7	1	Q8	2	Q9	1	Q10	3
Q11	3	Q12	3	Q13	4	Q14	2	Q15	2

Paper 1 Booklet B

No.	Solution
16	$7.5 \div 10 \div 3 = 0.25$
17	Multiple of 6: 6, 12, 18, (24), ... Multiple of 8: 8, 16, (24), ... 24
18	$10\frac{2}{3}$
19	$\frac{1}{16}$
20	$22 - 12 \div (4 + 2) \times 4$ $= 22 - 12 \div 6 \times 4$ $= 22 - 2 \times 4$ $= 22 - 8 = 14$
21	

Qn	Solution
22	Volume of a cube = 1 cm^3 Volume of solid = 9 x 1 = **9 cm^3**
23	6000$m\ell$ = 6ℓ 6ℓ ÷ 8 = **0.75ℓ**
24	(a) Triangle BEF → $\frac{1}{2}$ x 2 x 4 = **4 cm^2** (b) Twice of Triangle BEF = **Triangle BCF**
25	
26	∠CDE = 180 ° – 90 ° – 60 ° = **30 °**

Qn	Solution
27	<table><tr><td></td><td>Start Time</td><td>End Time</td><td>Duration</td></tr><tr><td>Ivan</td><td>8.05am</td><td>8.55 am</td><td>50 min</td></tr><tr><td>Kevin</td><td>8.15am</td><td>9.20am</td><td>65 min</td></tr></table> 65-50 = 15 min
28	1st 5th 6th 10th 11th 15th A, B, A, N, A A, B, A, N, A, A, B, A, N, A, ... 3 'A's in a group of 5 3 'A's in a group of 5 3 'A's in a group of 5 23÷3 = 7 R2 7x5 = 35 35 + 4 = 39
29	

Qn	Solution
30	360° + 180° = 540° 540° – 145° – 145° = 250° (∠ABC + ∠ADC + ∠CDE) Since ∠ABC = ∠ADC, ∠ABC cannot be 125° <table><tr><th>Statement</th><th>True</th><th>False</th><th>Not possible to tell</th></tr><tr><td>∠BAD + ∠DEC = 145°</td><td></td><td></td><td></td></tr><tr><td>∠ABC = 125°</td><td></td><td></td><td></td></tr></table>

Word Problem Worksheet

& Solutions

Nan Hua Paper 2

P6 Mathematics WA2 2024

Show your working clearly in the space provided for each question and write your answers in the spaces provided. Questions can be found at the end of the worksheet.

1. 660 – 500 = 160
160 ≈ 200
First 500g → $5.20
Additional 200g → $1 x 2 = $2
$5.20 + 2 = $7.20

---

2. 5 x 5 x 5 = 125 cm^3

---

3. a) April

b) March

---

4. Total of 3 girls → 28 x 3 = 84

Total of 4 girls → 29 x 4 = 116

116 – 84 = 32 kg

---

5. ∠BOE is twice of FOD

∠FOD = ∠COE (vertically opposite angles)

∠BOE + ∠COE = 3 units = 180 – 60 = 120°

∠FOD = ∠COE = 120 ÷ 3 = 40°

---

6. Muffins sold in afternoon = $\frac{2}{5}$ x $\frac{2}{3}$ = $\frac{4}{15}$

1 - $\frac{1}{3}$ - $\frac{4}{15}$

= $\frac{15-5-4}{15}$ = $\frac{6}{15}$

6 units = 42

1 unit = 7

15 units = 7 x 15 = 105 = number of Bala's muffins at first

Ans: 105

---

7. Before

Ivan : Helen : Total

3 : 2 : 5

9u : 6u : 15u

After

2u : 13u : 15u

Ivan gave Helen 9u – 2u = 7u

7u = 21

1u = 3

9u = 3 x 9 = $27

Ans: $27

---

8. 75% → $54

1% → 54 ÷ 75 = 0.72

100% → 0.72 x 100 = $72

Original cost of 15 cupcakes = $72

15 cupcakes → $72

1 cupcake → 72 ÷ 15 = $4.80

Number of cupcakes Karen can buy without discount

= 54 ÷ 4.80 = 11.25 ≈ 11

Ans: 11

---

9. a)

56 ÷ 14 = 4

Monday = 4 x 31 = 124

b)

75 x 3 = 225

Friday = 30 x 4 = 120

225 – 120 = 105

105 – 1 = 104

Thursday = 104 ÷ 2 = 52

Ans: a) 124

b) 52

---

10. a)

Number of hot dogs = $225 ÷ $3 = 75

b)

Number of chicken pies = $300 ÷ $4 = 75

Number of burgers = $240 ÷ $5 = 48

Number of waffles = $300 ÷ $3 = 100

Hotdog and chicken pie have the same number sold

Ans: a) 75
b) Hotdog & chicken pie

---

11. a)

8 x 8 = 64

Radius = 8 ÷ 4 = 2 cm

b)

1.75 x 3.14 x 2 x 2 = 21.98

Remaining area = 64 – 21.98 = 42.02 cm^2

Ans: a) 2 cm
b) 42.02 cm^2

---

12. a)

18 ÷ 4 ≈ 5 sets

$4.50 x 5 = $22.50

22 ÷ 5 = 5 sets

$18 x 5 = $90

Amount she spent = $22.50 + $90 = $112.50

b)

100% → $112.50

90% → 112.50 ÷ 100 x 90 = $101.25 = amount she will pay

Ans: a) $112.50

b) $101.25

---

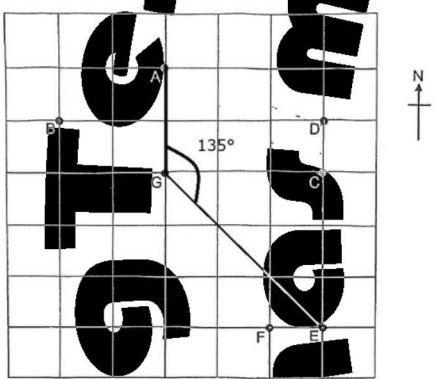
13. a)

i) F

ii) West

b)

G – refer to figure



Ans: a) i)F, ii)West

b) G

14. a)

∠ABE = 180 – 2(45+18) = 54°

b)

∠EBC = 90 – 54 = 36°

∠BEC = (180 – 36) x ½ = 72°

Ans: a) 54°

b) 72°

---

15. a)

3390 – 1830 = 1560

1560 ÷ 2 = 780

Amount Peter received = 780 + 1830 = 2610

b)

John received $780

If Peter receive same pay per day,

Peter should have received 780 x 3 = $2340

2610 – 2340 = 270

270 ÷ 5 = 54 = Number of days Peter worked

Ans: a) 2610

b) 54

---

16. Total shaded area = quadrant – unshaded triangle

Area of rectangle = 12 x 7 = 84

Area of quadrant = $\frac{1}{4}$ x $\frac{22}{7}$ x 7 x 7 = 38.5

Total area = 84 + 38.5 = 122.5

Area of unshaded triangle = ½ x 19 x 7 = 66.5

a)

Total shaded area = 122.5 – 66.5 = 56 cm^2

b)

$\frac{1}{4}$ x $\frac{22}{7}$ x 14 + 12 + 7 + (43.5 – 19) = 54.5 cm

Ans: a) 56 cm^2

b) 54.5 cm

---

17. a)

$1.17 x 32 = $37.44

b)

$1.17 x 40 = $46.80

$66.40 - $46.80 = $19.60

$19.60 ÷ 1.40 = 14

Amount of water = 14 + 40 = 54 m^3

Ans: a) $37.44

b) 54 m^3
