



NANYANG PRIMARY SCHOOL
END-OF-YEAR EXAMINATION
2023

PRIMARY 5
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 5 ()

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 In 5.687, which digit is in the hundredths place?

- (1) 5
- (2) 6
- (3) 7
- (4) 8

2 Which of the following is the same as 23 kg 52 g?

- (1) 23.025 kg
- (2) 23.052 kg
- (3) 23.502 kg
- (4) 23.520 kg

- 3 Ming Xuan bought 42 oranges, 28 mangoes and 14 kiwis from a fruit store. What was the ratio of the number of oranges to the number of mangoes to the number of kiwis that he bought? Express your answer in its simplest form.

(1) 2 : 3 : 1

(2) 2 : 4 : 6

(3) 3 : 2 : 1

(4) 6 : 4 : 2

- 4 A machine seals 120 fishball packets in 60 seconds. At this rate, how many fishball packets can it seal in 30 minutes?

(1) 3600

(2) 360

(3) 60

(4) 40

5 Arul had 240 stamps. He gave 60 stamps to his sister. What percentage of his stamps did Arul give to his sister?

(1) 20%

(2) 25%

(3) 75%

(4) 80%

6 Thomas had \$1200. He spent 35% of his money on food. How much money did he spend on food?

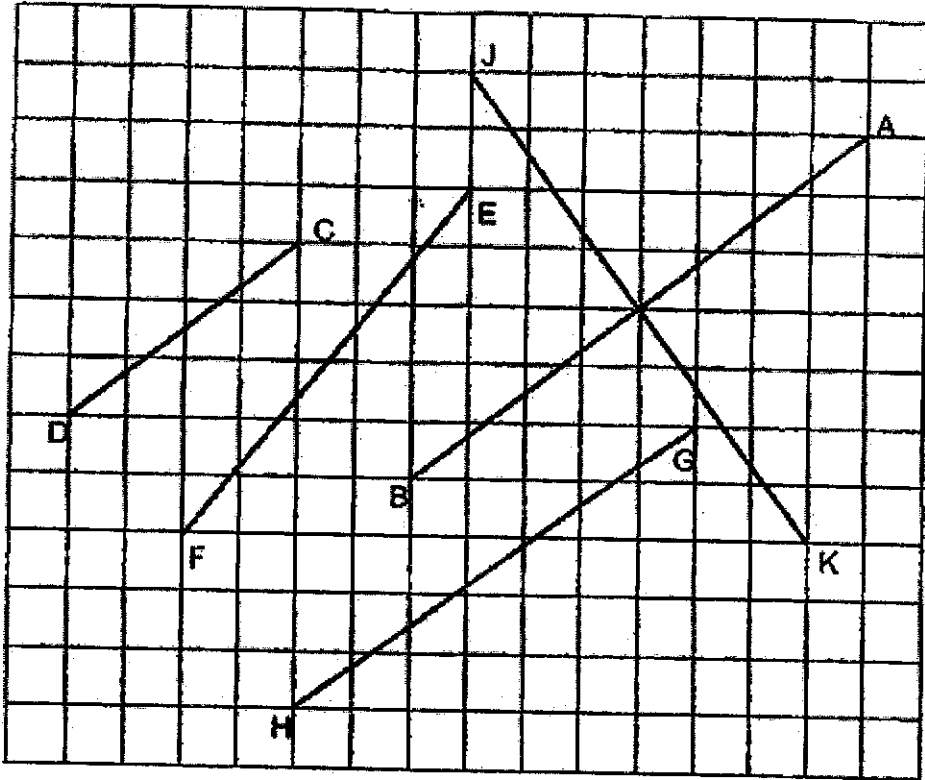
(1) \$180

(2) \$360

(3) \$420

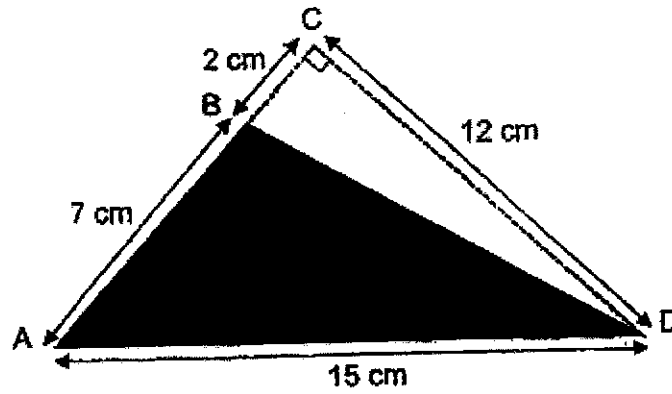
(4) \$780

7 Identify the line parallel to line AB.



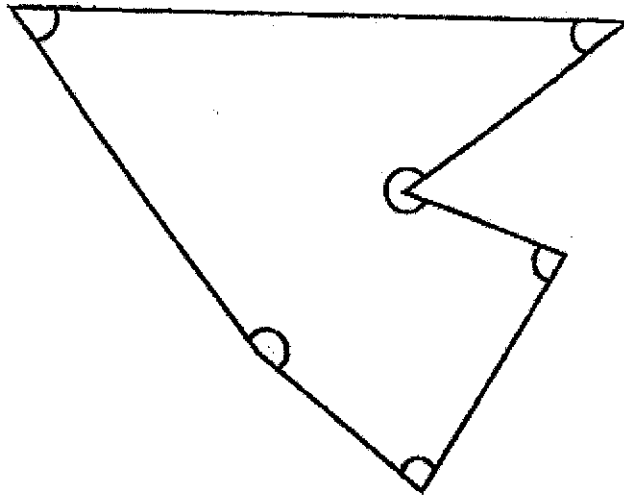
- (1) CD
- (2) EF
- (3) GH
- (4) JK

- 8 Find the area of the shaded triangle ABD.



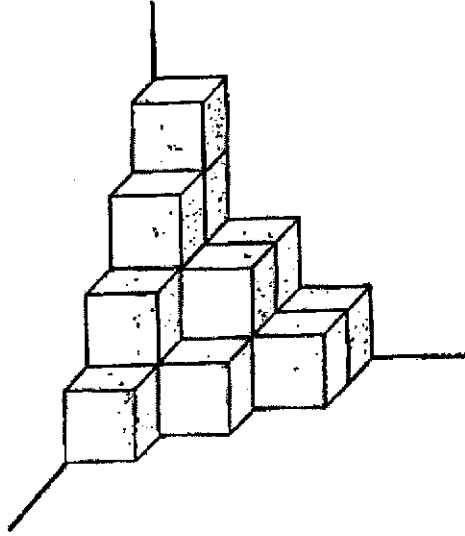
- (1) 42 cm^2
- (2) 52.5 cm^2
- (3) 54 cm^2
- (4) 84 cm^2

- 9 In the figure, how many of the six marked angles are more than 90° ?



- (1) 6
- (2) 2
- (3) 3
- (4) 4

- 10 The figure shows a solid made up of unit cubes. How many unit cubes are needed to make the solid?



- (1) 10
(2) 12
(3) 15
(4) 17

- 11 Arrange the following fractions from the smallest to the largest.

$$\frac{8}{9}, \frac{3}{7}, \frac{4}{5}$$

- | | <u>Smallest</u> | | | | <u>Largest</u> |
|-----|-----------------|---|---------------|---|----------------|
| (1) | $\frac{8}{9}$ | , | $\frac{3}{7}$ | , | $\frac{4}{5}$ |
| (2) | $\frac{8}{9}$ | , | $\frac{4}{5}$ | , | $\frac{3}{7}$ |
| (3) | $\frac{3}{7}$ | , | $\frac{4}{5}$ | , | $\frac{8}{9}$ |
| (4) | $\frac{3}{7}$ | , | $\frac{8}{9}$ | , | $\frac{4}{5}$ |

- 12 Find the average of the following 5 numbers.

23

23

18

16

0

- (1) 23
(2) 20
(3) 18
(4) 16
- 13 A factory produces 1505 kg of flour a day. The flour is packed equally into 50 packs. How much does each pack of flour weigh?

- (1) 30.1 kg
(2) 31 kg
(3) 300.1 kg
(4) 301 kg

14 At a funfair, there were 270 people. $\frac{2}{3}$ of them were children. $\frac{2}{5}$ of the children were girls and the rest were boys. How many boys were there at the funfair?

(1) 180

(2) 162

(3) 108

(4) 72

15 A chef cooked some soup for 200 guests. Each guest was served 0.78 t of the soup. How much soup did the chef cook?

(1) 14.6 t

(2) 15.6 t

(3) 146 t

(4) 156 t



NANYANG PRIMARY SCHOOL

**END-OF-YEAR EXAMINATION
2023**

PRIMARY 5

**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 5 ()

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 $198 + 35 + 7 - (35 + 8 + 4 \times 2)$

Ans: _____

17 Find the value of $5 \div 8$. Give your answer as a decimal.

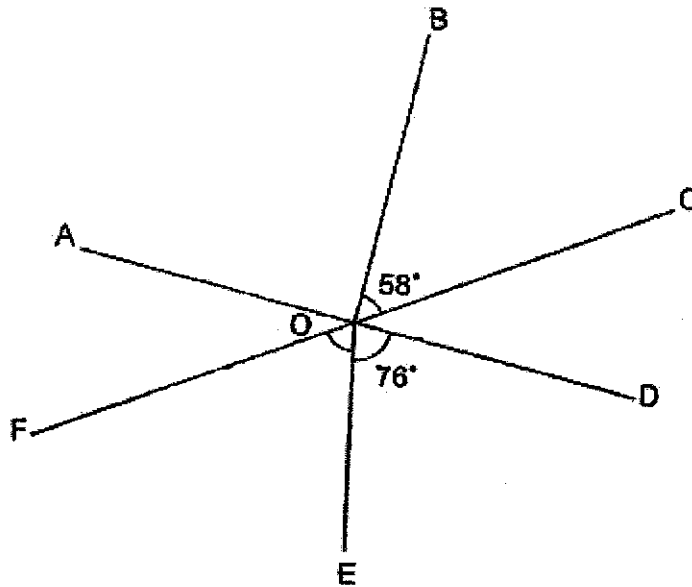
Ans: _____

18 What is the missing number in the box?

: 5 = 24 : 40

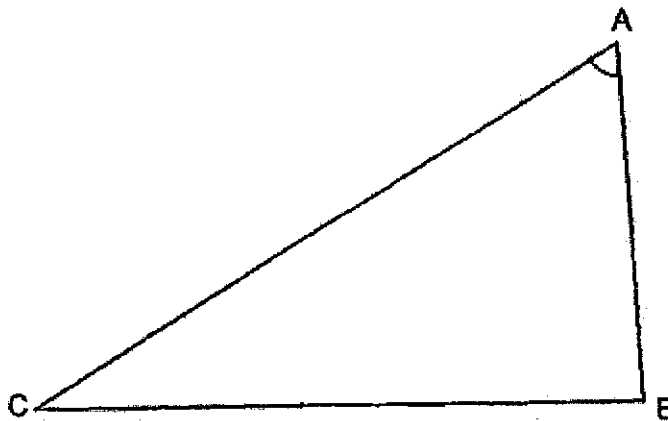
Ans: _____

- 19 In the figure below, AOD and COF are straight lines. $\angle BOC = 58^\circ$, $\angle DOE = 76^\circ$, $\angle AOB = 90^\circ$. Find $\angle FOE$.



Ans: _____°

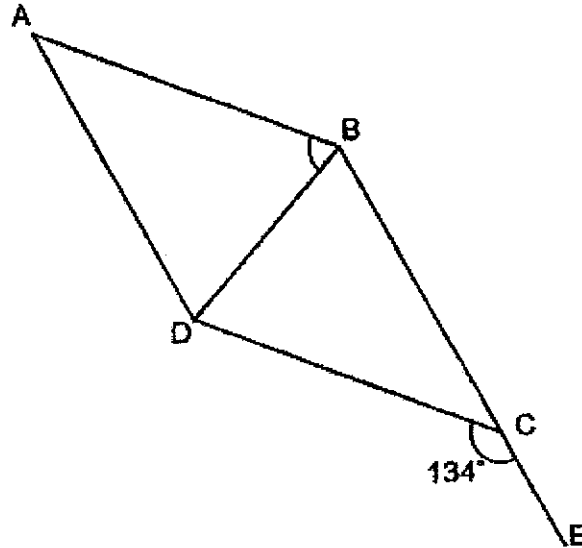
- 20 Measure and write down the size of $\angle BAC$.



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 In the figure below, ABCD is a rhombus. BCE is a straight line and $\angle DCE = 134^\circ$. Find $\angle ABD$.



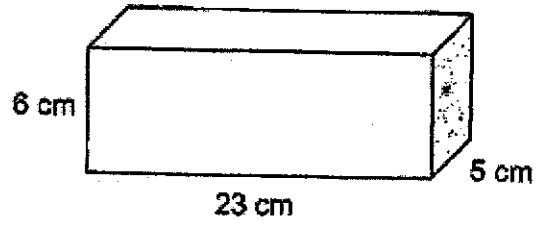
Ans: _____

- 22 Find the value of $\frac{2}{3} \times \frac{5}{8}$

Give your answer as a fraction in the simplest form.

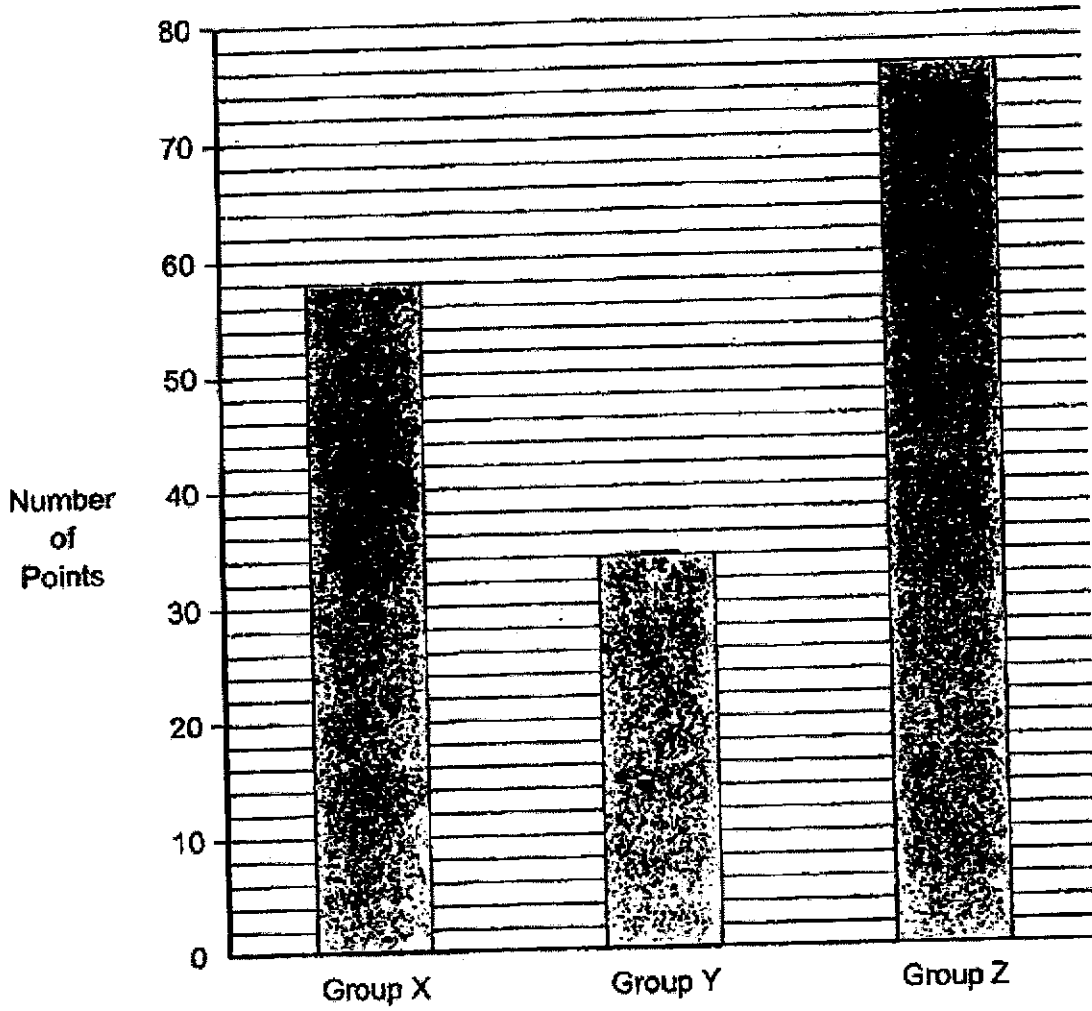
Ans: _____

23 What is the volume of the cuboid shown below?



Ans: _____ cm^3

- 24 The bar graph shows the group points scored by 3 groups.
What is the difference in the group points between the highest score and the lowest score?



Ans: _____

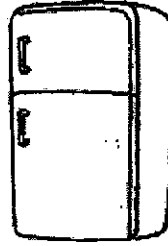
- 25 Sophia paid \$87.40 for 3 identical pencils and 7 identical markers. The price of a marker is \$1.20 more than the price of a pencil. Tim bought 10 such pencils. What was the amount of money he paid for 10 such pencils?

Ans: \$ _____

- 26 The product of 2 numbers is 3069. The smaller number is 9. Find the larger number. Round the answer to the nearest hundred.

Ans: _____

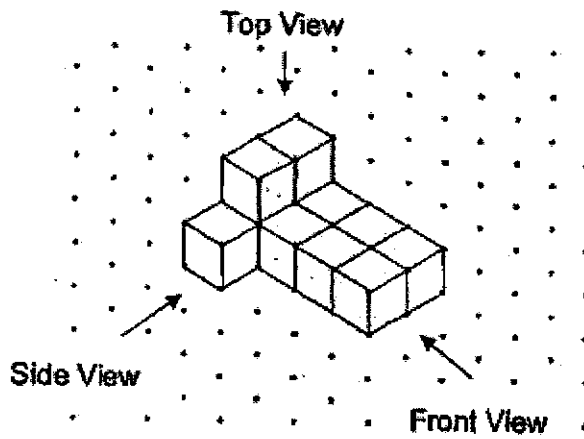
27 What is the price of the refrigerator after adding 8% GST?



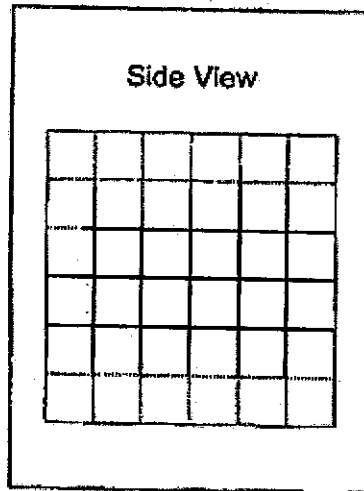
\$2800
(price before GST)

Ans: \$ _____

28 The figure shows a solid made up of 11 unit cubes.



(a) Draw the side view of the solid on the grid below.

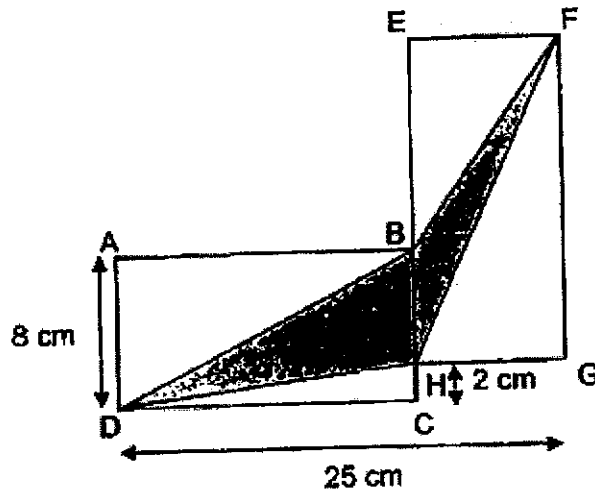


[1]

(b) Jun Wei painted the whole solid, including the base, green. How many of the 11 unit cubes had exactly three of their faces painted green?

Ans: (b) _____ [1]

- 29 ABCD and EFGH are 2 identical rectangles. Find the total area of the unshaded parts.



Ans: _____ cm²

- 30 The table below shows the height of 3 boys, Abel, Bernard and Carl. Their heights are in whole numbers. They have an average height of 154 cm. Carl is taller than Bernard and Abel is the shortest. Part of the table is smeared with ink. What is the lowest possible height of Carl?

Name	Height (cm)
Abel	106
Bernard	■
Carl	1■

Ans: _____ cm

End of Paper



NANYANG PRIMARY SCHOOL

**END-OF-YEAR EXAMINATION
2023**

PRIMARY 5

**MATHEMATICS
PAPER 2**

Duration: 1 hour 30 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.
5. The use of an approved calculator is allowed.

Name: _____ ()

Class: Primary 5 ()

Parent's Signature: _____

Booklet A	/ 20
Booklet B	/ 25
Paper 2	/ 55
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 1 to 5 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)

- 1 Abdul bought $5\frac{2}{5}$ m of string. He used $1\frac{3}{4}$ m of it to tie a parcel and $\frac{4}{10}$ m of it to decorate a present. How many metres of string had he left? Give your answer as a mixed number.

Ans: _____ m

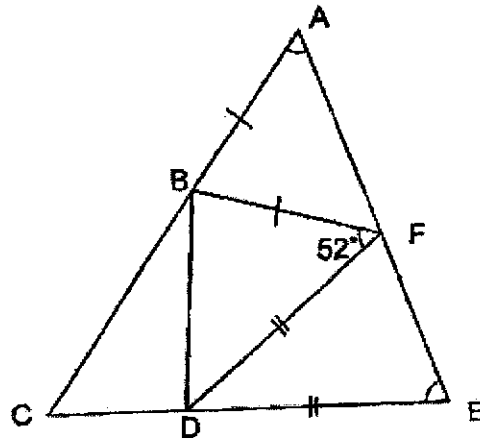
- 2 A jug contains $1\frac{7}{9}$ litres of apple juice. How many litres of apple juice are there in 6 such jugs altogether?

Ans: _____ l

- 3 The average mass of 5 children is 48 kg. When Peter's mass is added, the average mass becomes 45 kg. What is Peter's mass?

Ans: _____ kg

- 4 ACE is a triangle. Triangle ABF and triangle FDE are isosceles triangles. Find the sum of $\angle BAF$ and $\angle FED$.



Ans: _____

5. Mei Yan has a piece of yellow ribbon and red ribbon of the same length. She then cuts the piece of yellow ribbon and red ribbon into shorter pieces. If she gives a group of friends a shorter piece of yellow ribbon of length 1.4 m each, she will have 0.6 m of the yellow ribbon left. If she gives the same group of friends a shorter piece of red ribbon of length 1.8 m each, she will need an additional 2.2 m of the red ribbon. How many friends does Mei Yan have in this group?

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 The total cost of 2 identical files and 3 identical markers was \$15. The total cost of 5 such files and 6 such markers was \$34.80. What was the cost of 1 such marker?

Ans: _____ [3]

- 7 Team A played against Team B in a badminton match. 560 children watched the badminton match. 70% of the children were boys.

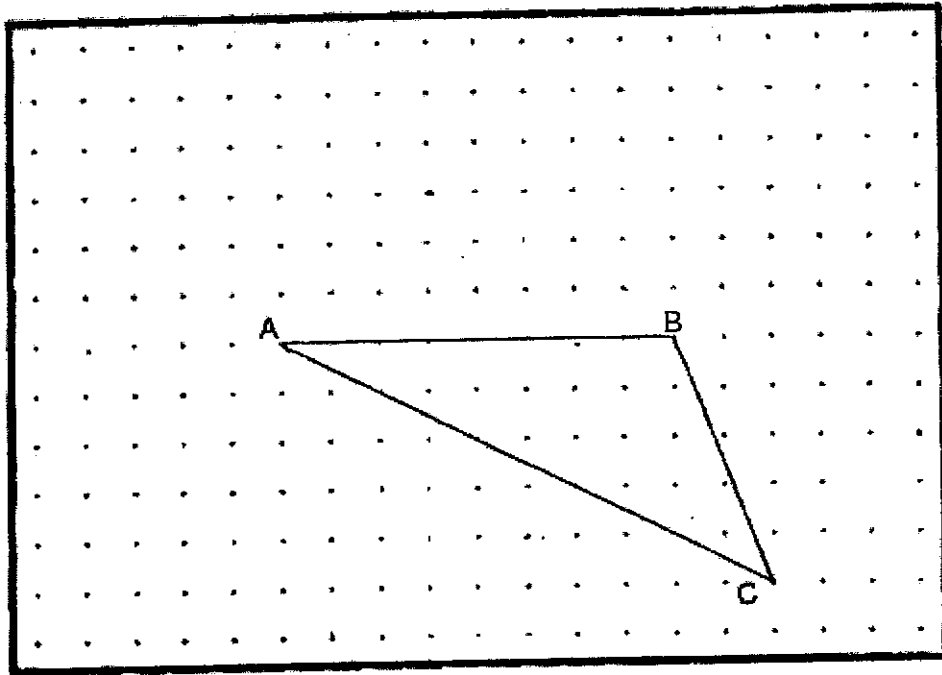
(a) How many girls watched the badminton match?

Ans: (a) _____ [1]

- (b) 42 of the girls supported Team B and the rest of the girls supported Team A. What percentage of the girls supported Team A?

Ans: (b) _____ [2]

- 8 A triangle ABC is drawn on a square grid inside a box.



By joining dots on the grid with straight lines,

- (a) draw a rhombus with BC as one of the sides. The rhombus and triangle ABC must not overlap. [1]
- (b) draw parallelogram ACFG. The length of AB is twice the length of AG. Triangle ABC must not overlap with parallelogram ACFG. [2]

- 9 Jason, Peter and Chris shared a sum of money in the ratio 5 : 9 : 2. The difference between Peter's share and Jason's share is \$128. How much more money did Peter have than Chris?

Ans: _____ [3]

- 10 The average mark for a class of students in a quiz is 74. The top 3 students scored 87, 95 and 100. When the top 3 students were excluded in the calculation for the average, the average mark becomes 62. How many students were there in the class?

Ans: _____ [3]

- 11 Ravi baked 2535 cookies. $\frac{1}{3}$ of them were chocolate cookies, $\frac{3}{5}$ of the remaining cookies were vanilla cookies and the rest were strawberry cookies.

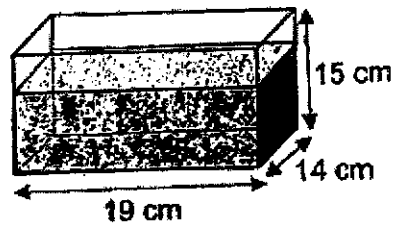
(a) How many vanilla cookies did he bake?

Ans: (a) _____ [2]

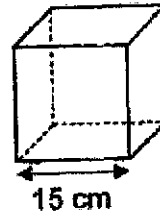
- (b) Ravi packed all the vanilla cookies into large and small tins to sell. He filled each large tin with 30 cookies and each small tin with 12 cookies. All the tins were full and there were no cookies left over. What was the least number of tins used by Ravi?

Ans: (b) _____ [2]

- 12 A rectangular tank measuring 19 cm by 14 cm by 15 cm is $\frac{2}{3}$ -filled with water. All the water is then poured into an empty cubical tank with sides measuring 15 cm each.



Rectangular Tank



Cubical Tank

- (a) What is the volume of water in the rectangular tank at first?

Ans: (a) _____ [1]

- (b) How much more water has to be added so that the cubical tank is $\frac{4}{5}$ -filled with water? Give your answer in litres.

Ans: (b) _____ [3]

- 13 Keryn and Carol had an equal number of stickers at first. After Keryn used 352 stickers and Carol used 84 stickers, Carol had 5 times as many stickers as Keryn.

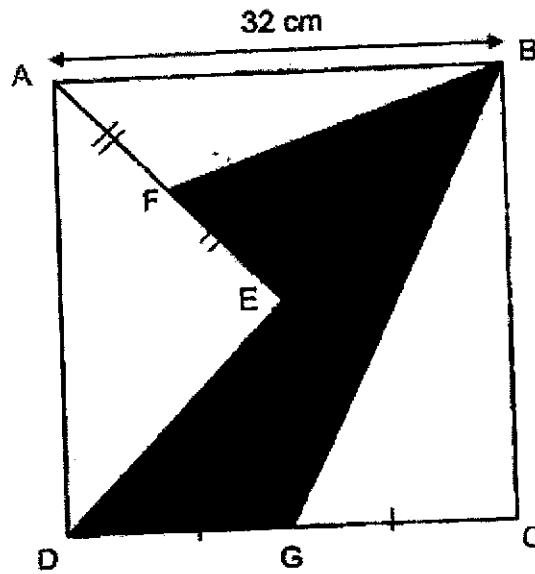
(a) How many stickers did Keryn have left?

Ans: (a) _____ [2]

(b) How many stickers did each girl have at first?

Ans: (b) _____ [2]

- 14 ABCD is a square. $AB = 32$ cm, $DG = GC$ and $AF = FE$ and $DE = EB$.



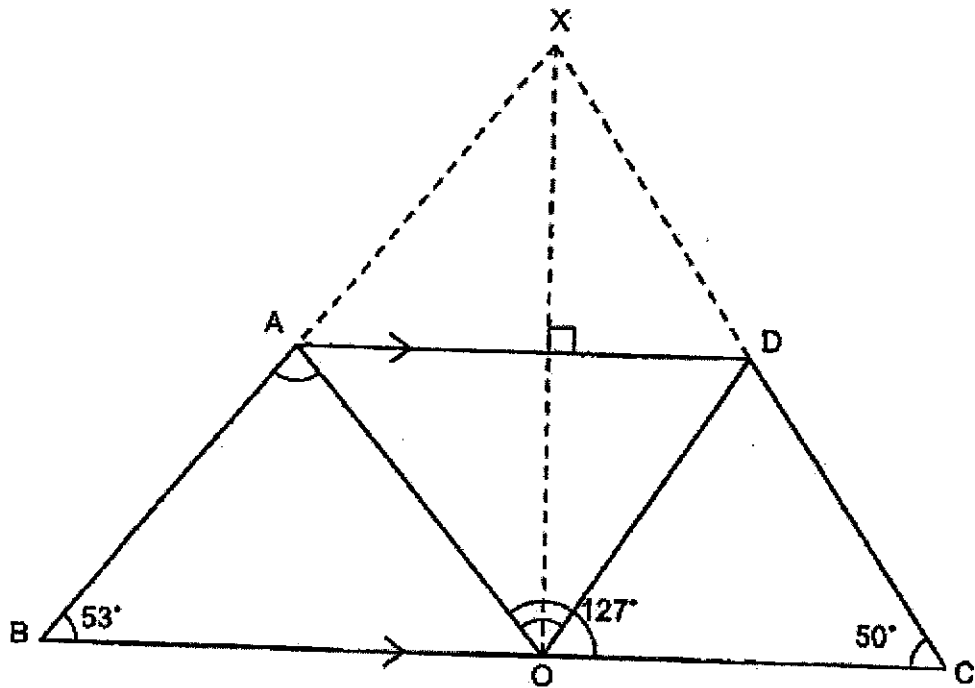
- (a) Find the area of the triangle BDG.

Ans: (a) _____ [1]

- (b) Find the area of the shaded parts.

Ans: (b) _____ [3]

- 15 A piece of triangular paper is folded into a trapezium as shown in the diagram below. $\angle ABO = 53^\circ$, $\angle DCO = 50^\circ$ and $\angle AOC = 127^\circ$.



- (a) Find $\angle AOD$.

Ans: (a) _____ [2]

- (b) Find $\angle BAO$.

Ans: (b) _____ [2]

- 16 The table shows the parking charges at Value Shopping Mall.

Parking Charges	
9 a.m. to 5 p.m. For the first hour or part thereof	\$1.20
For every additional $\frac{1}{2}$ hour or part thereof	\$1.00
After 5 p.m. till next morning 9 a.m.	\$5.00 per entry

- (a) Mrs Wee parked her car from 9.30 a.m. to 11.45 a.m. How much did she pay for her parking charges?

Ans: (a) _____ [2]

- (b) Mr Ong parked his car from 4.30 p.m. till the next morning 9 a.m. How much did he pay for his parking charges?

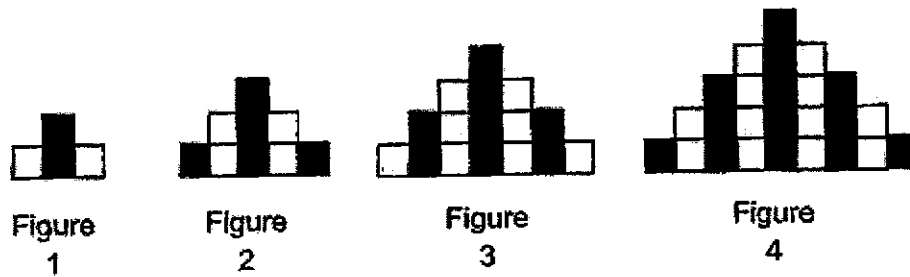
Ans: (b) _____ [1]

- (c) 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
Mr Lim paid \$5 when he parked his car from 6 p.m. till next morning 8.45 a.m.			
Mr Tan paid \$1.20 when he parked his car for 30 minutes.			
Some cars entered at 6 p.m. and exited at 6.50 p.m. on the same day. The parking charges for these cars were \$7.20.			

[2]

- 17 Bryan uses grey and white squares to form figures that follow a pattern as shown below.



- (a) The table shows the number of grey and white squares for the first four figures. Complete the table for Figure 5.

Figure Number	1	2	3	4	5
Number of grey squares	2	5	8	13	
Number of white squares	2	4	8	12	
Total number of squares	4	9	16	25	

[1]


- (b) Find the number of white squares in Figure 8.

Ans: (b) _____ [2]

(c) Find the total number of squares in Figure 49.

Ans: (c) _____ [2]

End of Paper



HANYANG PRIMARY SCHOOL
2023

END-OF-YEAR EXAMINATION

PRIMARY 5
MATHEMATICS
PAPER 1
(BOOKLET A)

Total Question for Booklets A and B: 1 hour

Additional Answer: Optical Answer Sheet (OAS)

IMPORTANT INFORMATION

- Do not use any other paper (e.g., your own) to do this.
- Write all mathematical symbols.
- Answer all questions.
- Mark your answers in the Optical Answer Sheet (OAS) provided.
- Use only a calculator in 2023 edition.

Questions 1 to 10 carry 1 mark each. Questions 11 to 14 carry 2 marks each. For each question, list all possible answers. Write your answer (1, 2, 3 or 4) in the space provided. (20 marks)

1. In each, write only the number of possible answers.
- (1) 8
(2) 6
(3) 7
(4) 5

3. Mrs. Khan bought 40 oranges, all mangoes and 14 mangoes less than 100 apples. With the same amount, she bought 20 more mangoes than she bought apples. How many mangoes did she buy? Express your answer in simplest form.

$$\begin{aligned}
 &O : M : A \\
 &40 : 20 : 14 \\
 &\div 2 \rightarrow 20 : 10 : 7 \\
 &\div 1 \rightarrow 20 : 10 : 7
 \end{aligned}$$

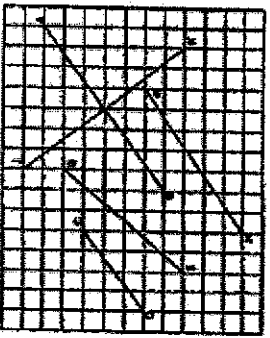
4. A number with 100 identical particles is 100 particles. A 100-unit bar represents 100 particles. How many particles are there in 100 units?

- (1) 100
(2) 200
(3) 300
(4) 400

5. What is the value of the unknown in the given set of 100?

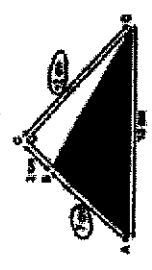
- (1) 23,023 kg
(2) 23,027 kg
(3) 23,028 kg
(4) 23,029 kg

6. Find the area of the shaded triangle ABC.



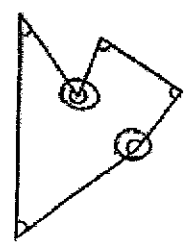
- (1) 20
(2) 18
(3) 16
(4) 15

7. Find the area of the shaded triangle ABC.



- (1) 20 cm²
(2) 22 cm²
(3) 24 cm²
(4) 26 cm²

8. In the figure, the ratio of the shaded region to the unshaded region is 1:2.



- (1) 8
(2) 5
(3) 3
(4) 2

9. The area of a square is 100 cm². The length of its side is 10 cm. The perimeter of the square is 40 cm.

$$\begin{aligned}
 &100 \rightarrow 10 \times 10 \\
 &10 \times 10 \rightarrow 10 \times 10 = 100 \\
 &100 \rightarrow 10 \times 10 = 100 \\
 &100 \rightarrow 10 \times 10 = 100
 \end{aligned}$$

- (1) 200
(2) 300
(3) 400
(4) 500

11. At a market, there were 200 people. $\frac{3}{5}$ of them were adults. $\frac{2}{3}$ of the children were girls and the rest were boys. How many boys were there at the market?



- (A) 100
- (B) 120
- (C) 140
- (D) 27

$200 \times \frac{3}{5} = 120$
 $120 \rightarrow 120 \div 3 = 40$
 $64 \rightarrow 120 - 40 = 80$ (A)

12. A total number of 2000 people were at a sports event. 1200 of them were men. How many women were there at the event?

- (A) 1400
- (B) 1800
- (C) 1400
- (D) 800

$2000 - 1200 = 800$ (D)

13. Find the average of the following numbers.

- 25
- 20
- 15
- 10
- 0

$\frac{25 + 20 + 15 + 10 + 0}{5} = 16$ (A)

14. A heavy truck weighs 1500 kg of iron a day. The iron is packed in 30 bags. How much iron is in each pack of iron weight?

- (A) 50 kg
- (B) 27 kg
- (C) 50 kg
- (D) 50 kg

$1500 \div 30 = 50$ (A)

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

- $\frac{2}{5}$
- $\frac{3}{4}$
- $\frac{1}{2}$

- (A) $\frac{1}{2}, \frac{2}{5}, \frac{3}{4}$
- (B) $\frac{2}{5}, \frac{1}{2}, \frac{3}{4}$
- (C) $\frac{1}{2}, \frac{3}{4}, \frac{2}{5}$
- (D) $\frac{2}{5}, \frac{3}{4}, \frac{1}{2}$

$\frac{1}{2} < \frac{2}{5} < \frac{3}{4}$

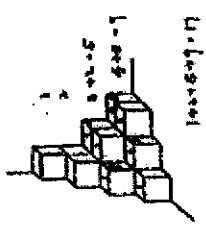
$\frac{2}{5} < \frac{1}{2}$

$\frac{1}{2} < \frac{3}{4}$

(B)

Therefore $\frac{2}{5}$ is smallest and $\frac{3}{4}$ is largest.

16. The figure shows a solid made up of unit cubes. How many unit cubes are needed to make the solid?



$3 \times 2 + 2 \times 2 + 1 \times 2 = 12$

- (A) 10
- (B) 18
- (C) 14
- (D) 17

(C)

2023 Model / Question 6

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 required.

16. Find the value of $18 \times 2 - 7 - (16 + 3 \times 4 - 8)$
 $= 18 \times 2 - 7 - (16 + 12 - 8)$
 $= 36 - 7 - (28 - 8)$
 $= 36 - 7 - 20$
 $= 9$

17. Find the value of $1 - 1$. Give your answer as a decimal.

$\frac{1}{1} - \frac{1}{1} = 0 - 0 = 0$
 or $1 - 1 = 0$

Ans: 0.000

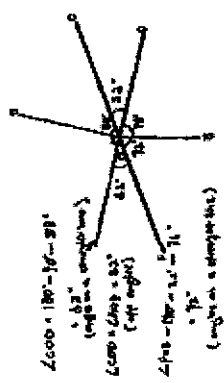
18. What is the value of the number in the box?

$12 \times 2 = 24$

$24 \div 3 = 8$

Ans: 8

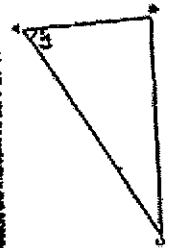
19. In the figure below, $\angle AOC$ and $\angle DOA$ are adjacent angles. $\angle AOC = 60^\circ$. Find $\angle BOD$.



$\angle AOB = 180^\circ - \angle AOC = 120^\circ$
 (adj. angles on a straight line)
 $\angle AOC = \angle AOD = 60^\circ$
 (adj. angles)
 $\angle BOD = 120^\circ - 60^\circ = 60^\circ$
 (angle on a straight line)

Ans: 60

20. Measure angle x in the figure below.



Ans: 45

MARYAM PRIMARY SCHOOL
END-OF-YEAR EXAMINATION
2023

PRIMARY 6
MATHEMATICS
PAPER 1
(BOOKLET B)

Total Duration: 40 Minutes & 15 Seconds

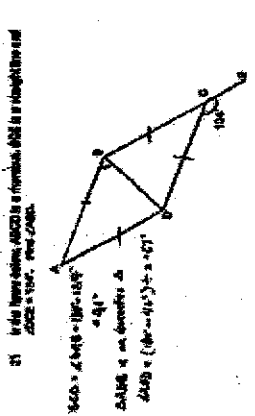
- INSTRUCTIONS TO CANDIDATES**
1. Do not turn over this paper until you are told to do so.
 2. Prepare appropriate materials.
 3. Answer all questions in this booklet.
 4. Write your answers in the boxes.
 5. The use of calculators is NOT allowed.

Name: _____
 Class: Primary 6

Page 19 of 20

Please flip and return this examination paper to the exam inv. Any queries should be raised at the same time when collecting papers.

Questions 21 to 24 carry 2 marks each. Show your working clearly and write your answers in the correct number of significant figures. For questions which require units, give your answers in the correct units.



21 In the figure above, ABCD is a rectangle. Find the length of AD.

Ans: 5.79

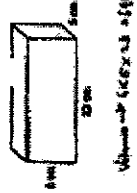
22 Find the value of θ .

One your answer use fractions in the simplified form.

$\theta = \frac{1}{2} \times \frac{180}{3} = 30^\circ$

Ans: 30°

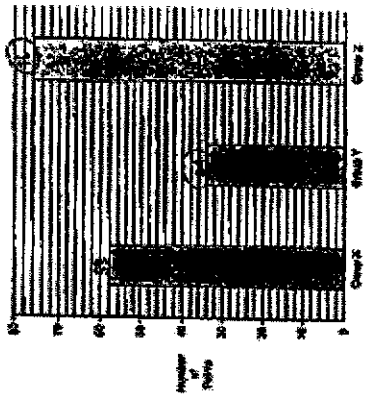
23 Find the volume of the cuboid shown below.



Volume = $20 \times 10 \times 5 = 1000$

Ans: 1000

24 The bar graph shows the marks scored by 2 groups. Find the difference in the group mean marks.



$76 - 68 = 8$

Ans: 8

25 A shop sold 100 kg of 3 different plants and 7 identical varieties. The price of a variety is \$2.50 more than the price of a plant. The shop sold 10 more plants. Total cost was the amount of money he paid for 10 more plants.

1	100
2	100
3	100
4	100
5	100
6	100
7	100

$100 \times 7 = 700$
 $100 \times 10 = 1000$

Ans: 27

26 The product of 2 numbers is 2700. The number of digits in the product is 4. Report the number in the standard form.

$2700 = 2.7 \times 10^3$

Ans: 2.7×10^3

27 Find the area of the composite shape below (in cm^2).



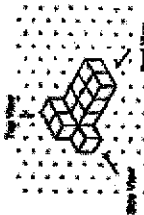
Area of rectangle = $10 \times 10 = 100$

Area of semi-circle = $\frac{1}{2} \times \pi \times 5^2 = 39.25$

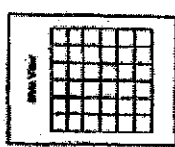
Total Area = $100 + 39.25 = 139.25$

Ans: 139.25

28 The figure shows 100 small squares of 11 cm each.



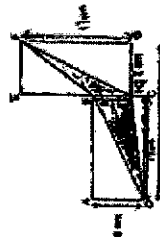
29 Draw the area under the curve on the grid below.



30 Use the grid below to work out the area of the shaded region. The area of the 11 cm side and every small square of the grid is 1 cm².

Ans: 57

31 ABCD and EFGH are 2 identical rectangles. Find the total area of the composite figure.



Area of ABCD = $11 \times 11 = 121$

Area of EFGH = $11 \times 11 = 121$

Total Area = $121 + 121 = 242$

Ans: 242

32 The table below shows the height of 2 trees. ABCD, measured over 24 weeks, are to be used. The trees are to be used. The trees are to be used. The trees are to be used.

Week	Tree A (cm)	Tree B (cm)
1	100	100
2	105	105
3	110	110
4	115	115
5	120	120
6	125	125
7	130	130
8	135	135
9	140	140
10	145	145
11	150	150
12	155	155
13	160	160
14	165	165
15	170	170
16	175	175
17	180	180
18	185	185
19	190	190
20	195	195
21	200	200
22	205	205
23	210	210
24	215	215


Sum of height of 2 trees = $215 \times 2 = 430$

Average height = $\frac{430}{24} = 17.9167$

Sum of height of 2 trees = $17.9167 \times 24 = 430$

33 The total height of 2 trees is 100 cm. The trees are to be used. The trees are to be used. The trees are to be used.

Ans: 100


HMAS PRIMARY SCHOOL
END-OF-YEAR EXAMINATION
2023
PRIMARY 6
MATHEMATICS
PAPER 2
 Duration: 1 hour 30 minutes

INSTRUCTIONS TO PUPILS

- Do not turn over this page until you are told to do so.
- Follow all instructions carefully.
- Answer all questions.
- The paper is for 60 minutes.
- The use of any approved calculator is allowed.

Name: _____ ()

Class/Primary: _____ ()

Parent's Signature: _____

Booklet A	/ 25
Booklet B	/ 25
Page 2	/ 10
Total	/ 60

Please show and retain the examination paper for one week after completion should be required of the centre staff when returning books.

Question 1 to 4 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 asked. (10 marks)

1. A bag contains 1/3 pieces of white paper. How many pieces of white paper are there in 3 such bags altogether?

$$3 \times \frac{1}{3} = 1$$

Ans: 1

2. A bag contains 1/3 pieces of white paper. How many pieces of white paper are there in 3 such bags altogether?

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

Ans: 4 1/3

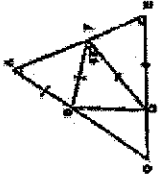
3. The circumference of a circle is 110 cm. What is the radius of the circle? (4 marks)

$$2\pi r = 110$$

$$r = \frac{110}{2\pi} = \frac{110}{2 \times 3.14} = \frac{110}{6.28} = 17.5175$$

Ans: 17.5175

4. ABC is a triangle. Triangle ABC and triangle DEF are similar triangles. Find the value of x. (2 marks)



$$\angle A = \angle D = 70^\circ$$

$$\angle B = \angle E = 50^\circ$$

$$\angle C = \angle F = 60^\circ$$

Ans: 50

Question 5 to 8 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 asked. (8 marks)

5. A bag contains 1/3 pieces of white paper. How many pieces of white paper are there in 3 such bags altogether?

$$3 \times \frac{1}{3} = 1$$

Ans: 1

6. A bag contains 1/3 pieces of white paper. How many pieces of white paper are there in 3 such bags altogether?

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

Ans: 4 1/3

9. A bag contains 1/3 pieces of white paper. How many pieces of white paper are there in 3 such bags altogether?

$$3 \times \frac{1}{3} = 1$$

Ans: 1

10. A bag contains 1/3 pieces of white paper. How many pieces of white paper are there in 3 such bags altogether?

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

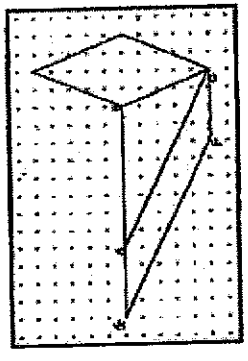
Ans: 4 1/3

11. A bag contains 1/3 pieces of white paper. How many pieces of white paper are there in 3 such bags altogether?

$$3 \times \frac{1}{3} = 1$$

Ans: 1

12. A bag contains 1/3 pieces of white paper. How many pieces of white paper are there in 3 such bags altogether?



13. A bag contains 1/3 pieces of white paper. How many pieces of white paper are there in 3 such bags altogether?

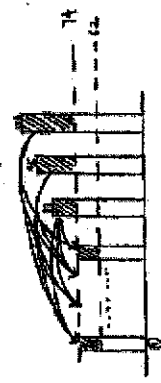
Ans: 1

16. John, Peter and Chris... The average number of students in the club is 24. The number of students in the club is 74.

J + P + C = 74
C = 9 + 2
J + P = 65
J = 34 + 4 = 38
P = 24 - 7 = 17
J + P = 38 + 17 = 55

Ans: 55

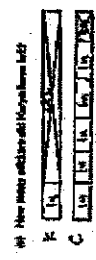
17. The average number of students in the club is 24. The number of students in the club is 74.



Sum of 3 numbers = 74 → (100 - 74) × (100 - 74) × (100 - 74) = 64
Difference = 49 → 74 - 25 = 49
No. of students (excluding 49) → 60 + 12 = 72
Total students → 72 + 4 = 76

Ans: 76

18. John and Chris had an equal number of students in the club. The number of students in the club is 74.



J + P = 74
J = 34 + 4 = 38
P = 24 - 7 = 17

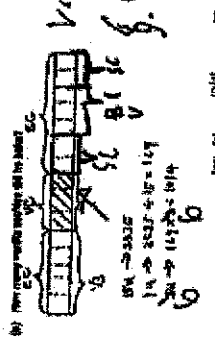
Ans: 57

19. How many students did not have a car?

67 + 85 = 152

Ans: 67

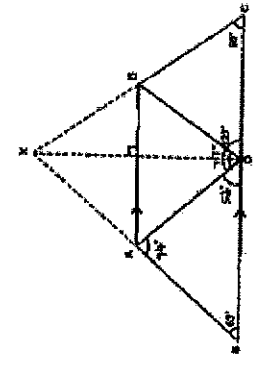
20. How many students did not have a car? The number of students in the club is 74.



104 + 30 = 134
134 ÷ 2 = 67
Total number of students → 67 + 2 = 69

Ans: 69

21. A piece of irregular paper is folded into a triangle. The number of students in the club is 74.



∠CDB = 180 - 50 - 50 = 80°

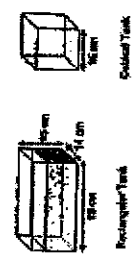
Ans: 80

∠AOC = 180 - 50 - 50 = 80°

∠BOC = 180 - 50 - 50 = 80°

Ans: 80

22. A rectangular tank measuring 10 cm by 14 cm by 10 cm is filled with water. All the water is transferred into a cylindrical tank with a diameter of 10 cm.



(a) What is the volume of water in the cylindrical tank at first?

$\frac{4}{3} \times \pi \times 14 \times 10 = 6160$
Ans: 6160

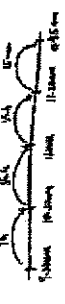
(b) How much more water has to be added to fill the cylindrical tank to full with water? Give your answer in litres.

$\frac{4}{3} \times \pi \times 14 \times 10 = 6160$
 $3700 - 6160 = 2460$
 $2460 \div 1000 = 2.46$

Ans: 2.46

Table with columns: Position Change, Amount, and Total. Values: 4 cm, 14 cm, 10 cm; 1.00, 1.00; 2.00 cm, 2.00 cm.

(c) How many centimeters of water are in the cylindrical tank at first?



$4 \times 20 + 4 \times 20 + 4 \times 20 = 240$

(d) How much more water has to be added to fill the cylindrical tank to full with water? Give your answer in litres.

$4 \times 20 + 4 \times 20 + 4 \times 20 = 240$

$4 \times 20 + 4 \times 20 = 160$

Ans: 160

23. How many students did not have a car? The number of students in the club is 74.



104 + 30 = 134
134 ÷ 2 = 67
Total number of students → 67 + 2 = 69

Ans: 69

24. ABCD is a square. AD = 20 cm, DB = 20 cm and AB = 20 cm.



Area of triangle = $\frac{1}{2} \times 20 \times 20 = 200$

$200 - 200 = 0$

$\frac{1}{2} \times 20 \times 20 = 200$

Ans: 200

(c) Find the area of the shaded part.

Area of $\triangle ABE = \frac{1}{2} \times 20 \times 20 = 200$

$\triangle ABE \rightarrow \frac{1}{2} \times 20 \times 20 = 200$

Total shaded area → 200 + 200 = 400

Ans: 400

10) Find the total number of responses in Figure 6.

$$47 + 1 = 48$$

$$50 + 20 = 70$$

ANS: 118
LEAD: 118

See all pages

11) Draw total area and width responses to four figures that show a pattern of square blocks.



12) The table shows the number of gray and white responses for the four test figures. Complete the table for Figure 5.

Figure	Gray	White
1	1	0
2	3	0
3	6	0
4	10	0
5		

13) Find the number of white responses in Figure 5.

$$10 + 7 = 17$$

$$25 + 15 = 40$$

$$30 + 10 = 40$$

$$40 + 10 = 50$$

$$50 + 17 = 67$$

ANS: 17

14) Each of the statements below is either true, false, or indeterminate. Write true, false, or indeterminate in the space provided. For each statement, put a check (✓) in the box for correct.

Statement	True	False	Indeterminate
15) All numbers are even.	✓		
16) The number 27 is a prime number.			✓
17) The number 27 is a composite number.		✓	

ANS: 17