Founded 1947

南侨小学

NAN CHIAU PRIMARY SCHOOL

PRELIMINARY EXAMINATION

2021

MATHEMATICS

PAPER 1 BOOKLET A

PRIMARY 6

Name: _____ ( ) Marks: /20

Class: Pr 6_____ Time: 1 hour (Booklets A & B)

Date: 20 August 2021 Parent's Signature: _____

Instructions to Students:

1. Do not turn over the 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.

*This paper consists of 6 pages altogether.

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 and shade your answer (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

---

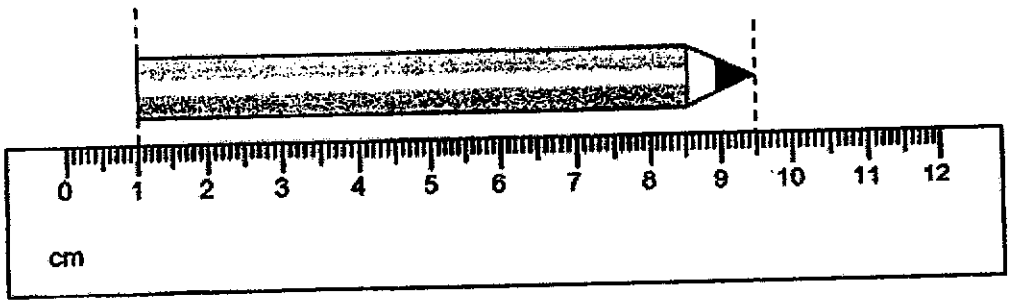
1 Which one of the following is five million, one hundred and twenty thousand in numerals?

(1) 5 000 120
(2) 5 100 200
(3) 5 102 000
(4) 5 120 000

2 Which one of the following is the same as 30 kg 70 g?

(1) 3070 g
(2) 3700 g
(3) 30 070 g
(4) 30 700 g

3 What is the length of the pencil?

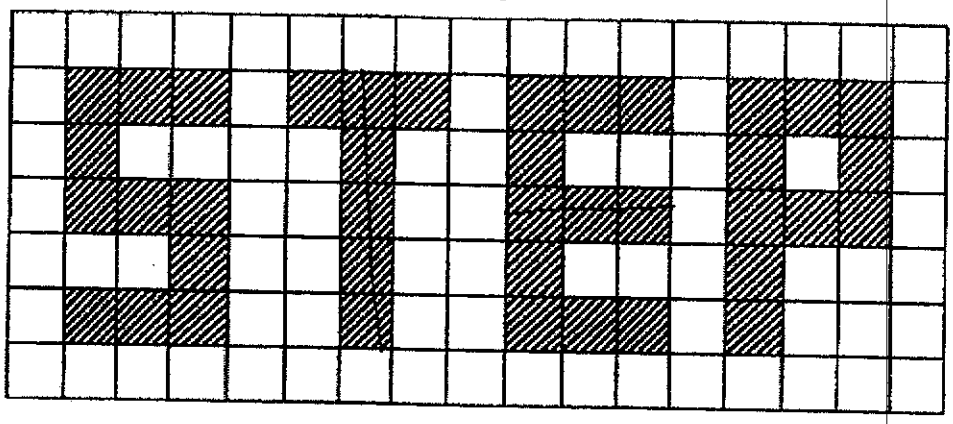


(1) 1.5 cm
(2) 8.5 cm
(3) 9.5 cm
(4) 10.5 cm

4 Which one of the following would most likely be the mass of a mobile phone?

(1) 16 g
(2) 160 g
(3) 1.6 kg
(4) 16 kg

5 Four letters are shown on a square grid.



How many of the letter(s) has/ have a line of symmetry?

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

6 Express $3\frac{1}{20}$ as a decimal.

(1) 3.05
(2) 3.1
(3) 3.12
(4) 3.5

7 Simplify $5w + 10 - 4w - 8$

(1) $w + 2$

(2) $w + 18$

(3) $9w + 2$

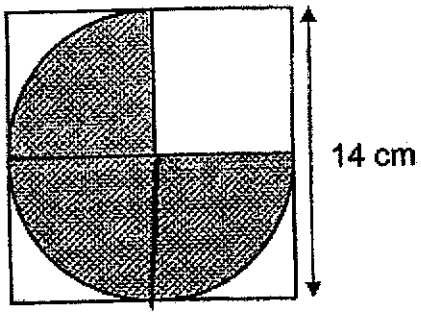
(4) $9w + 18$

8 Arrange these distances from the longest to the shortest.

2 km 305 m	2.35 km	$2\frac{3}{5}$ km

	Longest			Shortest
(1)	2 km 305 m	, 2.35 km	,	$2\frac{3}{5}$ km
(2)	2.35 km	, $2\frac{3}{5}$ km	,	2 km 305 m
(3)	$2\frac{3}{5}$ km	, 2 km 305 m	,	2.35 km
(4)	$2\frac{3}{5}$ km	, 2.35 km	,	2 km 305 m

9 The figure is formed by a square, a semi-circle and a quarter-circle. Find the area of the shaded parts. Take $\pi = \frac{22}{7}$.



(1) 33 cm^2

(2) 38.5 cm^2

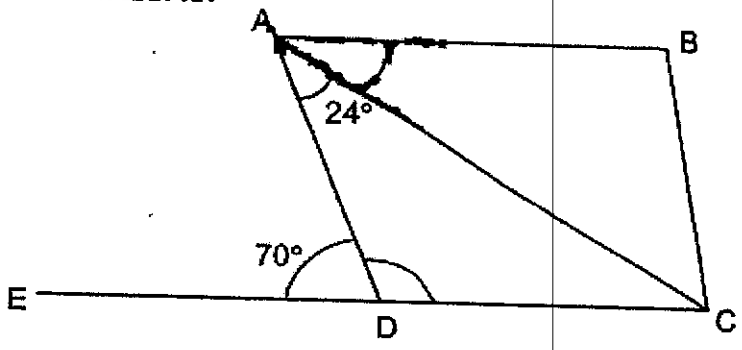
(3) 115.5 cm^2

(4) 154 cm^2

10 In a shop, the average number of T-shirts sold in 3 months was 28. In the first month, 13 T-shirts were sold. The difference between the number of T-shirts sold in the second month and the number of T-shirts sold in the third month is the smallest possible. The number of T-shirts sold in the third month was fewer than the number of T-shirts sold in the second month. How many T-shirts were sold in the third month?

(1) 7
(2) 14
(3) 35
(4) 70

11 The figure below shows a trapezium ABCD. EDC is a straight line and AB // DC. $\angle DAC = 24°$ and $\angle ADE = 70°$. Find $\angle BAC$.



(1) 24°
(2) 35°
(3) 46°
(4) 55°

12 $\frac{1}{4}$ of a bar is painted blue and $\frac{1}{2}$ of the remaining bar is painted yellow. What fraction of the bar is painted?

(1) $\frac{1}{4}$
(2) $\frac{3}{8}$
(3) $\frac{5}{8}$
(4) $\frac{3}{4}$

13 Gladys had the following types of coins in her purse.

Types of coins	Number of coins
5¢	2
10¢	1
20¢	2
50¢	1
$1	1

She took out 3 coins from her purse and placed them into a donation can. Which one of the following amounts could **not** be the amount taken out of her purse?

(1) $1.25
(2) $0.90
(3) $0.75
(4) $0.55

14 There are some red and blue markers in a pencil case. The table below shows the number of permanent and non-permanent markers.

Type	Permanent	Non-permanent
Red Markers	9	16
Blue Markers	8	32

Based on the information given in the table, which one of the following statements is correct?

(1) There are 17 permanent blue markers.

(2) The number of permanent red markers is 36% of the total number of red markers.

(3) The total number of blue markers is fewer than the total number of red markers.

(4) The ratio of the number of non-permanent blue markers to the number of permanent blue markers is 1 : 4.

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

	Column A	Column B	Column C	Column D
Row 1	1	2	3	4
Row 2	8	7	6	5
Row 3	9	10	11	12
Row 4	16	15	14	13
. . .	. . .	. . .	. . .	. . .

In which column will number 123 appear?

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

End of Paper 1 Booklet A

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PRELIMINARY EXAMINATION

2021

MATHEMATICS

PAPER 1 BOOKLET B

PRIMARY 6

Name: _____ Marks: /25

Class: Pr 6_____ Time: 1 hour (Booklets A & B)

Date: 20 August 2021 Parent's Signature: _____

Instructions to Students:

1. Do not turn over the 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.

*This paper consists of 7 pages altogether.

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)

Do not write in this space

16 Find the value of 1065 – 98

Ans: _____

17 Find the value of 3 ÷ 7. Give your answer correct to 2 decimal places.

Ans: _____

18 Write down all the common multiples of 6 and 8 that are smaller than 50.

Ans: _____

Score: _____

19 What is the value of $\frac{8k+6}{6}$ when $k = 9$?

Do not write in this space

Ans: _____

20 At a fruit stall, the price of an orange is $\frac{3}{7}$ of the price of a mango. The price of an apple is half the price of an orange. What is the ratio of the price of an orange to the price of a mango to the price of an apple?

Ans: _____

Score: _____

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)

Do not write in this space

21 Meiling is 45 kg. She is 400 g heavier than her sister. What is her sister's mass in kg?

Ans: _____ kg

22 The table shows the charges of a photograph printing shop.

For the first two 5R photographs	$3 each
Subsequent 5R photographs	$2 each

Janet printed some 5R photographs. She paid a total of $30 for the 5R photographs. How many 5R photographs did she print?

Ans: _____

23 A wire measuring 24 m long is bent to form two triangles as shown. The length used to make the big triangle is twice the length used to make the small triangle. What is the length of the wire used to make the big triangle?

Ans: _____ m

Score: _____

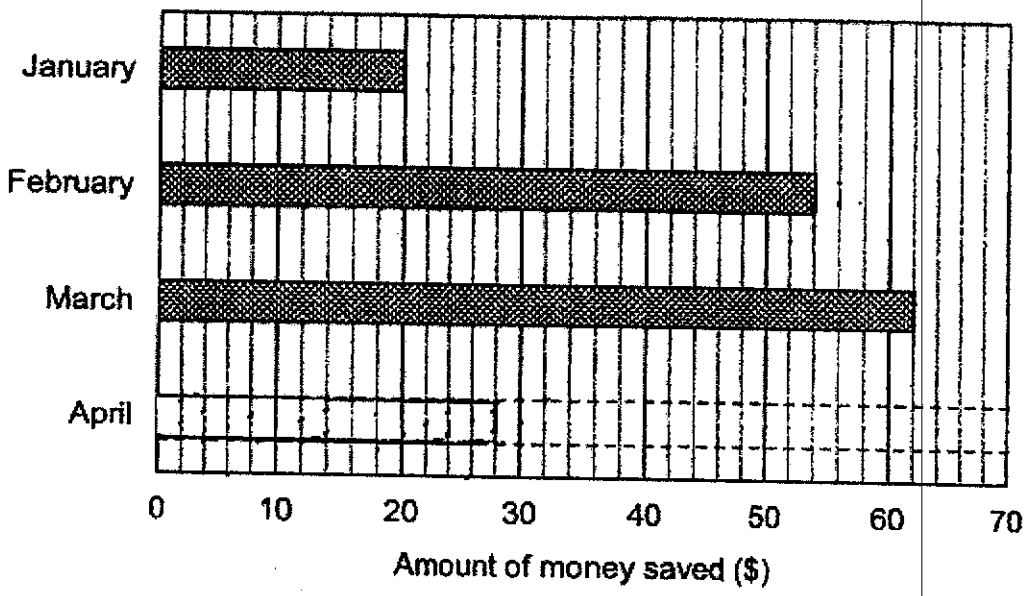
Use the table and bar graph below to answer questions 24 and 25.

Do not write in this space

Muthu received the same amount of allowance each month from January to April. The table below shows the amount of money Muthu spent from January to April.

Months	Amount of money spent
January	$80
February	$46
March	$38
April	$72

The amount of money saved is represented by the bar graph below. The bar for the amount of money saved in April has not been drawn.



24 Draw the bar for the amount of money saved in April in the bar graph above.

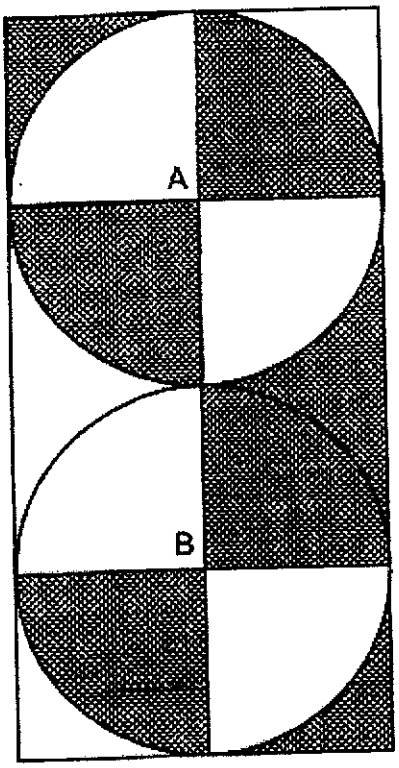
25 What percentage of his total allowance received from January to April did Muthu spend?

Ans: _____ %

Score:

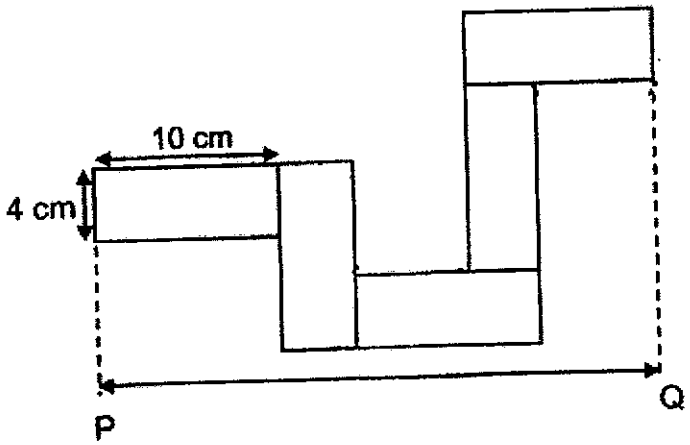
Do not write in this space

26 The figure shows 2 identical circles in a rectangle. A and B are centres of the circles. What fraction of the figure is shaded? Give your answer in the simplest form.



Ans: _____

27 The figure below is made up of 5 identical rectangles, with no overlap. Each rectangle measures 10 cm by 4 cm. What is the length of line PQ?

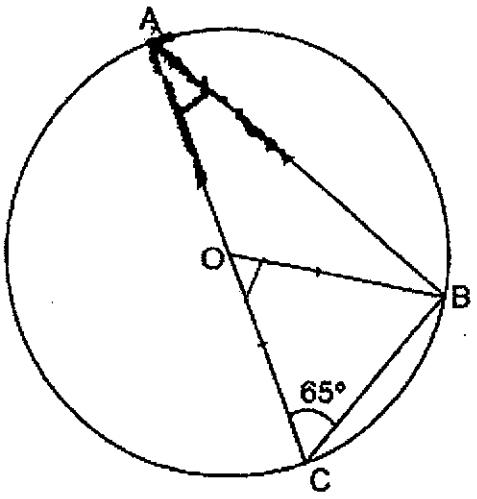


Ans: _____ cm

Score: _____

28 In the figure, O is the centre of a circle and ABC is a triangle. ∠BCA = 65°. Find ∠BAC.

Do not write in this space



Ans: _____ °

29 The table below shows the number of fans owned by each household in a block. Part of the table is covered by ink blot. There are 58 households who owned at least 2 fans.

Number of fans	0	1	2	3	4
Number of households	5	9			8

Each statement below is either true, false or not possible to tell. For each statement, put a tick (✓) in the correct column.

Statement	True	False	Not possible to tell
There were 72 households in the block.			
9 households owned at least 1 fan.			
The number of households who owned 2 fans was equal to the number of households who owned 3 fans.			

Score: _____

Do not write in this space

30 Jasmine had a box of red and white beads. $\frac{3}{4}$ of the total number of beads were red. Jasmine used $\frac{5}{9}$ of the number of red beads and some white beads to make a necklace. She used $\frac{1}{2}$ of the total number of beads to make the necklace. What fraction of the number of white beads did she use to make the necklace?

Ans: _____

End of Paper 1 Booklet B

Score: _____

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NAN CHIAU PRIMARY SCHOOL

PRELIMINARY EXAMINATION

2021

MATHEMATICS PAPER 2

PRIMARY 6

Name: _____ ( ) Marks: /55

Class: Pr 6_____ Time: 1 h 30 min

Date: 20 August 2021 Parent's Signature: _____

Instructions to Students:

Total Marks: /100

1. Do not turn over the 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.

*This paper consists of 15 pages altogether.

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)

Do not write in this space

1 A jug contained 2 litres of lime juice. Freya poured equal amount of lime juice into several glasses. She poured $\frac{3}{8}$ litres of lime juice into each glass. What is the most number of glasses of lime juice she could have?

Ans: _____

2 The number of visitors to a gallery was 9000 in February. This was a 20% increase from the number of visitors in January. How many visitors were there in January?

Ans: _____

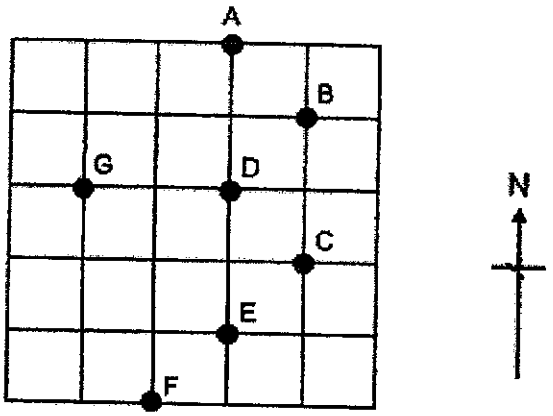
Score:

3 A rectangular tank of height 2 m has a square base of side 80 cm. What is the volume of water in the tank when it is $\frac{1}{4}$ – filled with water?

Do not write in this space

Ans: _____ m^3

4 The square grid shows the positions of A, B, C, D, E, F and G.



(a) Susan walked directly from point F to point C in a straight line. In which direction did she walk?

(b) Ali stood at one of the points facing point G. After he turned 45° clockwise, he faced point D. Which point was Ali at?

Ans: (a) _____

(b) Point _____

Score: _____

5 The table below shows the number of electronic gadgets sold by Mr Tan in four months.

Do not write in this space

Months	Number of electronic gadgets sold
August	156
September	132
October	148
November	?

In order for Mr Tan to qualify for the yearly 'Best Salesman Award', he has to sell an average of 170 electronic gadgets for 3 out of the 4 months. What is the least number of electronic gadgets that he has to sell in November in order to qualify for that award?

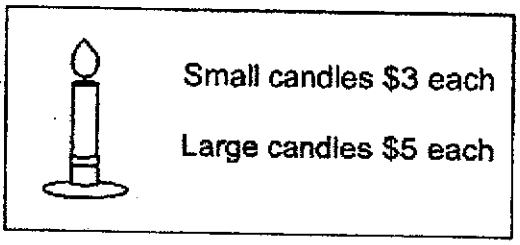
Ans: _____

Score: _____

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 the bracket [ ] at the end of each question or part-question. (45 marks)

Do not write in this space

6 The prices of two sizes of candles at a shop are shown below.



Sarah bought an equal number of small candles and large candles. She spent $120 altogether. How many candles did she buy altogether?

Ans: _____ [3]

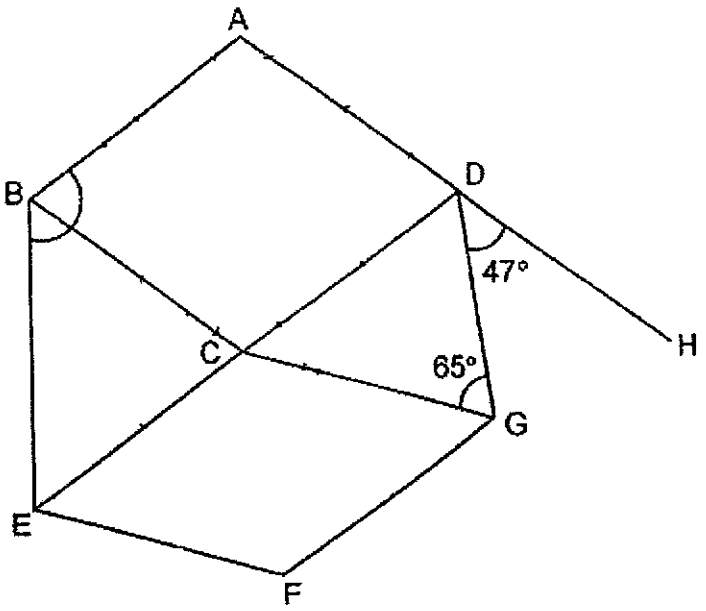
7 When Taps X and Y are turned on at the same time, they can fill up a tank completely in 6 minutes. Tap X alone will take 10 minutes to fill up the tank completely. How long will it take for Tap Y alone to fill up the tank completely?

Ans: _____ [3]

Score: _____

8 In the figure below, ABCD and CEFG are rhombuses. ADH and ECD are straight lines and BC = CE. ∠CGD = 65°. ∠GDH = 47°.
Find ∠ABE.

Do not write in this space

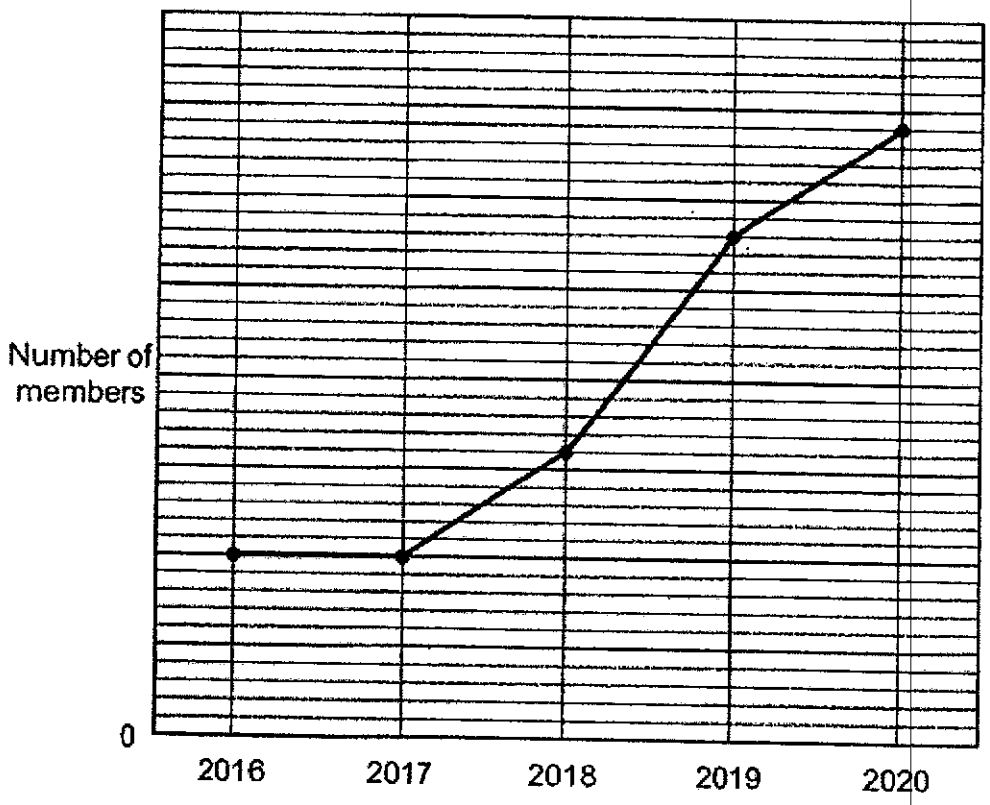


Ans: _____ [3]

Score: ☐

9 The line graph shows the number of members in a club at the end of each year from 2016 to 2020. The number of members is not shown on the scale.

Do not write in this space



(a) In which year did the number of members increase the most compared to the previous year?

(b) From 2016 to 2020, what was the percentage increase in the number of members?

Ans: (a) _____ [1]

(b) _____ [2]

Score: ____

Do not write in this space

10 The number of workers in Factory A was $\frac{4}{7}$ of the number of workers in Factory B. When 36 workers transferred from Factory B to Factory A, both factories had the same number of workers.

(a) How many more workers were in Factory B than in Factory A at first?

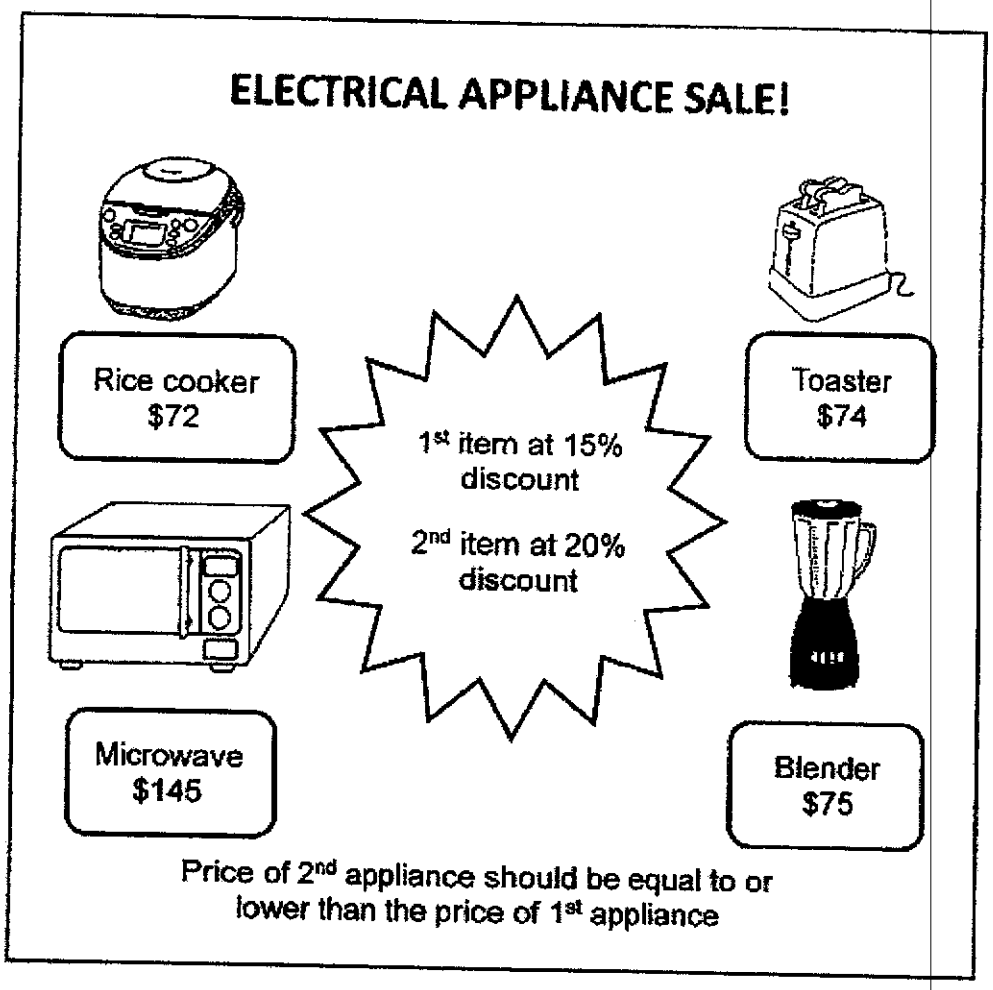
(b) How many workers were there altogether?

Ans: (a) _____ [2]

(b) _____ [1]

Score:

11



Do not write in this space

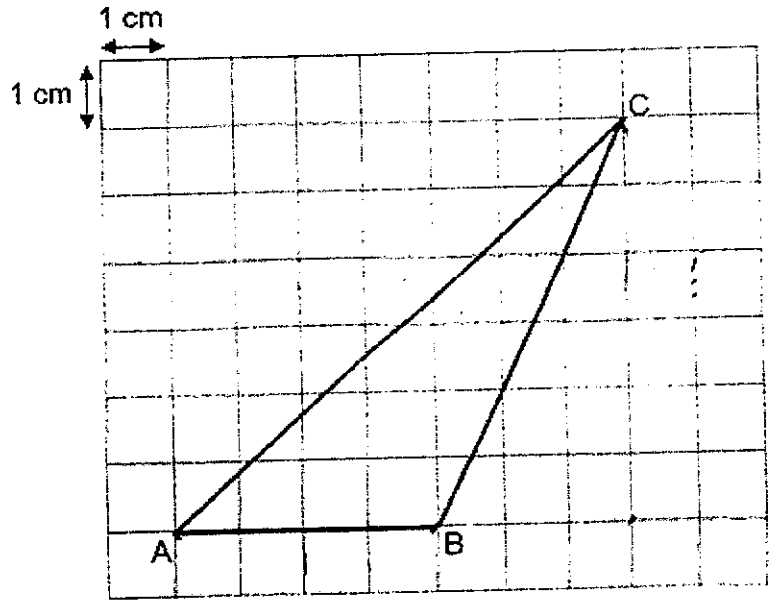
Mrs Rahman bought two different electrical appliances. The total discount she received for the two items was $26.05. How much did she spend?

Ans: _____ [3]

Score:

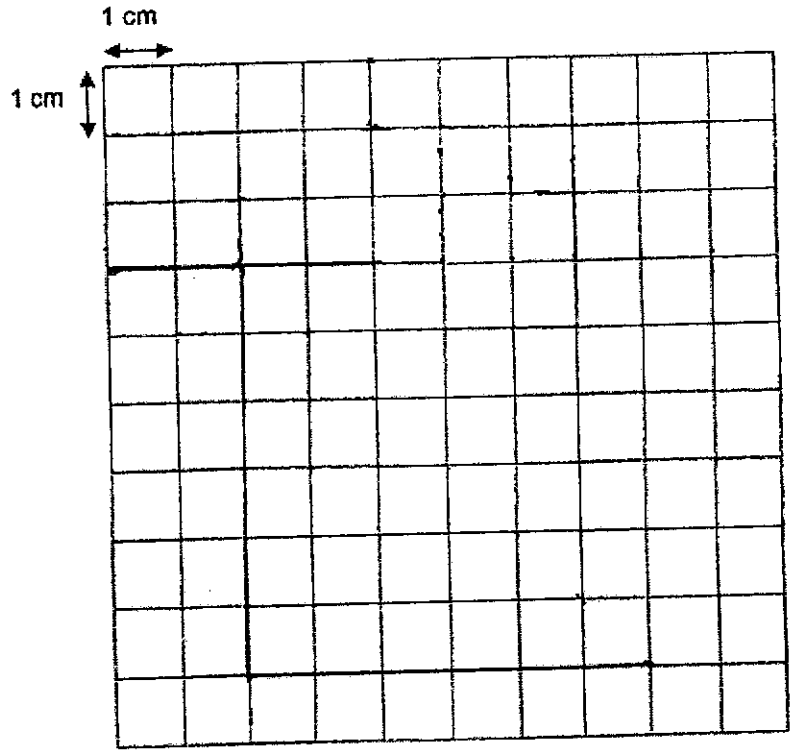
Do not write in this space

12 The figure below shows a Triangle ABC drawn on a square grid.



(a) Find the area of Triangle ABC.

(b) Draw an isosceles Triangle XYZ on the square grid below.
The ratio of the area of isosceles Triangle XYZ to the area of the above Triangle ABC is 3 : 2. [3]



Ans: (a) _____ [1]

Score: _____

13 Sam received $0.90 more pocket money than John every day. They each spent $1.80 per day and saved the rest of their pocket money. After many days, John saved $74.40 and Sam saved $130.20.

Do not write in this space

(a) How many days did John take to save $74.40?

(b) How much pocket money did both boys receive altogether each day?

Ans: (a) _____ [2]

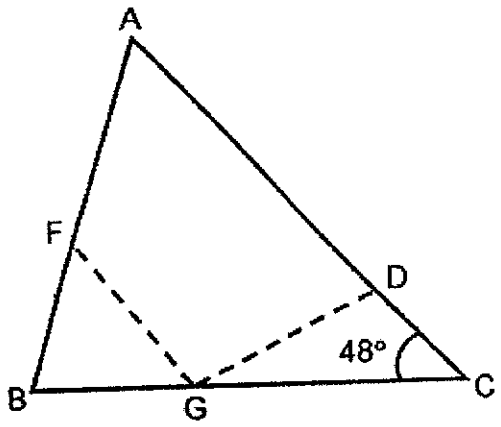
(b) _____ [2]

Score: ____

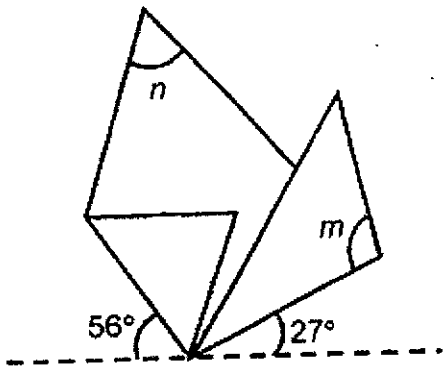
Do not write in this space

14 Alice has a triangular piece of paper ABC. She folded it along the lines FG and DG as shown below. BGC is a straight line. BF = BG.

(a) Find $\angle m$.
(b) Find $\angle n$.



Before folding



After folding

Ans: (a) _____ [2]

(b) _____ [2]

Score: ☐

15 Celina spent $\frac{5}{9}$ of her money on 36 cupcakes and 32 muffins. The price of one cupcake was thrice as much as the price of one muffin. She then used $\frac{1}{6}$ of her money to buy more cupcakes. She spent a total of $187.50 on all the cupcakes. How much did she spend on the muffins?

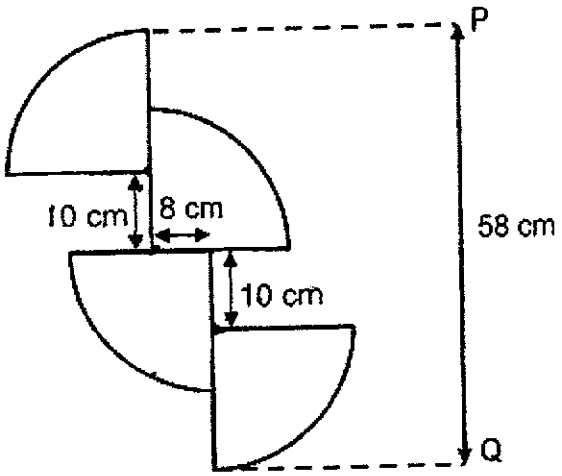
Do not write in this space

Ans: _____ [5]

Score: _____

Do not write in this space

16 The figure is formed by 4 identical quarter circles. PQ is 58 cm.

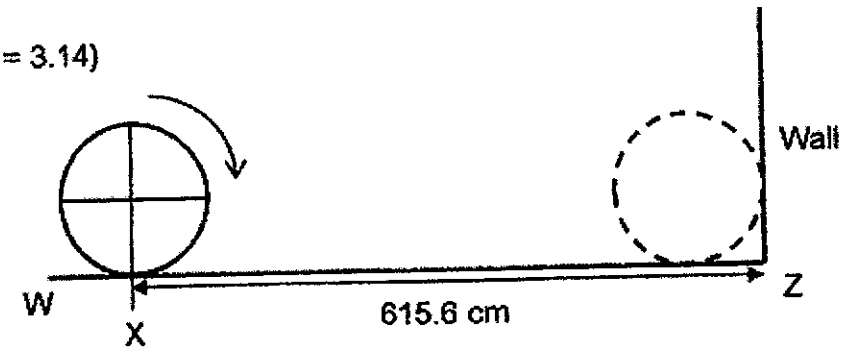


(a) Find the radius of the quarter circle.

(b) Find the perimeter of the figure.

(c) A circular wheel is formed by the 4 identical quarter circles. The wheel turned along the straight line WZ and reached the wall as shown below. The distance between point X and point Z is 615.6 cm. How many turns did the wheel make?

(Take $\pi = 3.14$)



Ans: (a) _____ [1]

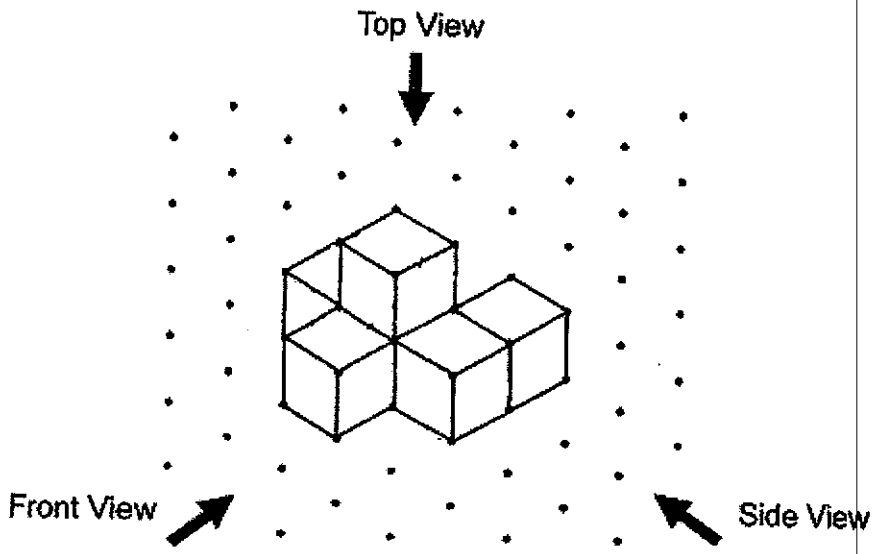
(b) _____ [2]

(c) _____ [2]

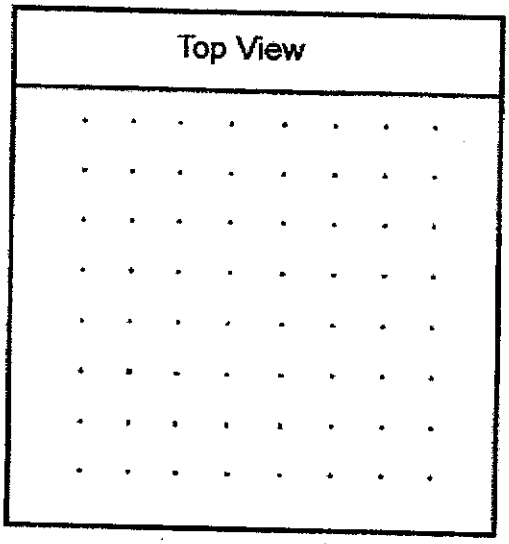
Score: _____

17 Megan stacked six 1-cm cubes together to form the solid below.

Do not write in this space



(a) Draw the top view of the solid in the grid below. [1]
Drawing of the top view is as seen from the front view only.



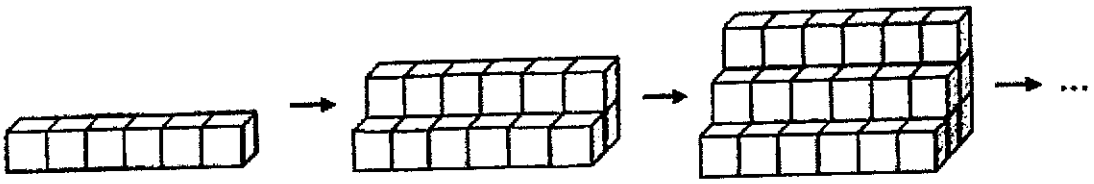
(b) Megan painted the whole solid, including the base, red. How many of the 6 cubes had exactly four of their faces painted red?

Ans: (b) _____ [1]

Score:

Do not write in this space

(c) Megan rearranged the cubes to form the following figure. She wanted to build a set of steps with more 1-cm cubes. The figures below show how she built the steps.



If Megan continued building the steps in this way, what would be the height of the set of steps that had 168 cubes?

Ans: (c) _____ [3]

End of Paper

Score: _____

SCHOOL : NAN CHIAU PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2021 SA2

PAPER 1 BOOKLET A

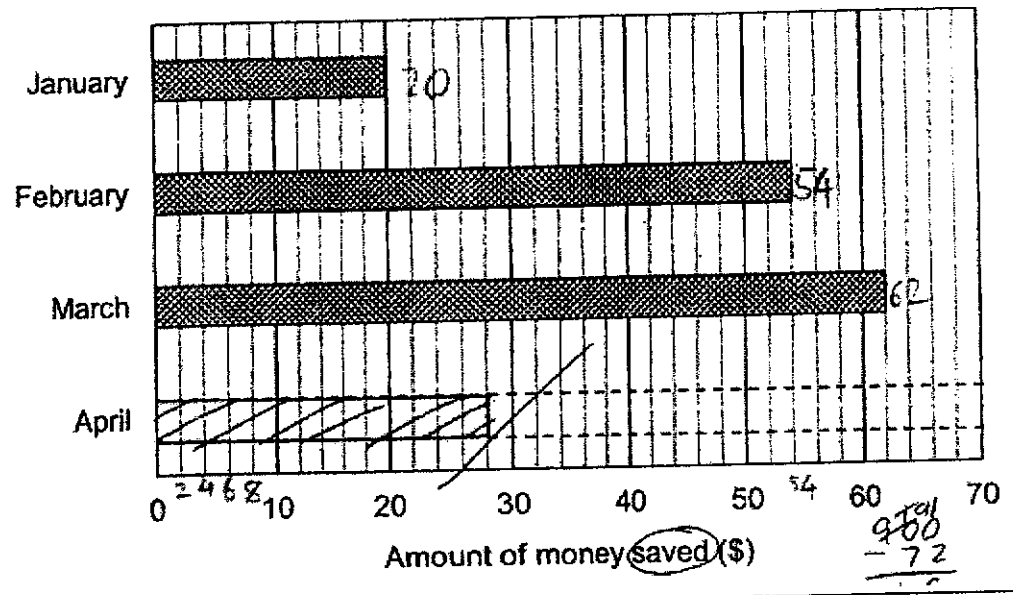
Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
4	3	2	2	2	1	1	4	3	3

Q 11	Q12	Q13	Q14	Q15
3	3	4	2	3

PAPER 1 BOOKLET B

Q16) 967
Q17) 0.43
Q18) 24 , 48
Q19) 13
Q20) 6 : 14 : 3
Q21) 44.6kg
Q22) 14
Q23) 16m

Q24)



Q25)	59%
Q26)	½
Q27)	30cm
Q28)	25°
Q29)	**True** **False** **Not possible to tell**
Q30)	1/3

PAPER 2

Q1)	$2 \div 3/8 = 5\frac{7}{8}$ 5
Q2)	9000 ÷ 80 = 112.5 112.5 x 100 =11250 9000 ÷ 120 = 75 75 x 100 = 7500
Q3)	80 x 80 = 6400 6400 x 200 x ¼ = 320000 0.32m³
Q4)	a) Northeast b) Point E
Q5)	170 x 3 = 510 510 – 156 – 148 = 206
Q6)	3 + 5 = 8 120 ÷ 8 = 15 15 x 2 = 30
Q7)	15minutes

Q8) $\angle ADC => 180 - 65 - 47 = 68$

$\angle BAD => 180 - 68 = 112$

$\angle DCG => 180 - 65 - 65 = 50$

$\angle BCE => \frac{180-68}{2} = 56$

$\angle ABE => 56 + 68 = 124°$

Q9) a) 2019

b) 240%

Q10) a) 14 – 11 = 3

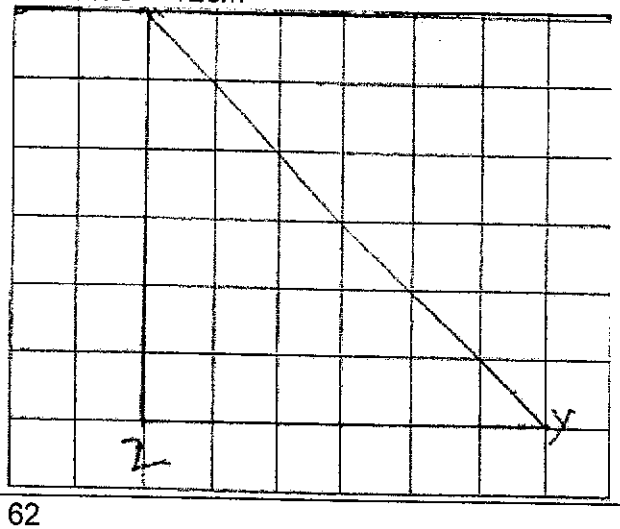
36 ÷ 3 = 12

12 x 6 = 72

b) 12 x 22 = 264

Q11) $122.95

Q12) a) ½ x 4 x 6 = 12cm²

b) 

Q13) a) 62

b) $6.90

Q14) a) 105°

b) 64°

Q15) 140 ÷ 5 = 28

28 x 3 = 84

3u = 28c

28 + 36 = 64

187.5 ÷ 50 = 3.75

3.75 x 3 = 1.25

1.25 x 32 = 40

$40

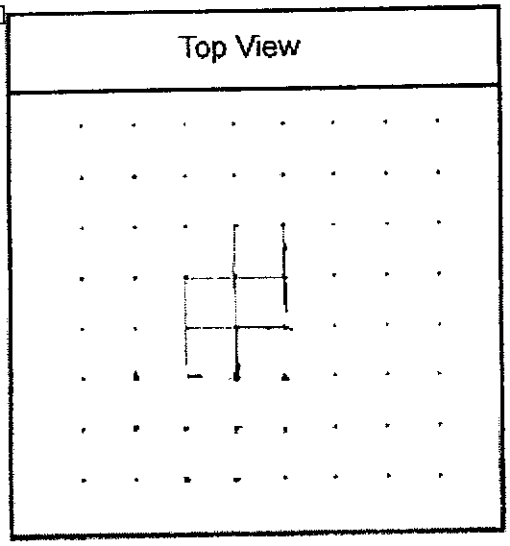
Q16) a) 19cm

b) 219.32cm

c) 5cm

Q17)

a)



b)1

c) 7cm