NANYANG PRIMARY SCHOOL
PRELIMINARY EXAMINATION
2025

PRIMARY 6

MATHEMATICS
PAPER 1
(BOOKLET A)

Total Time for Booklets A and B: 1 hour

Additional materials: Optical Answer Sheet (OAS)

INSTRUCTIONS TO CANDIDATES

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

Name: _____ ( )

Class: Primary 6 ( )

This booklet consists of 14 printed pages and 2 blank pages.

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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 Round 31 899 to the nearest thousand.

(1) 30 000

(2) 31 000

(3) 31 900

(4) 32 000

2 What does the digit 8 in 7.089 stand for?

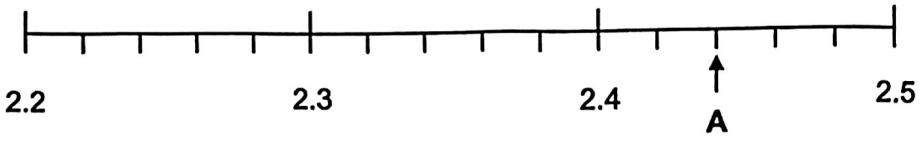
(1) 8 tens

(2) 8 tenths

(3) 8 hundredths

(4) 8 thousandths

3 In the number line below, what is the value of A?



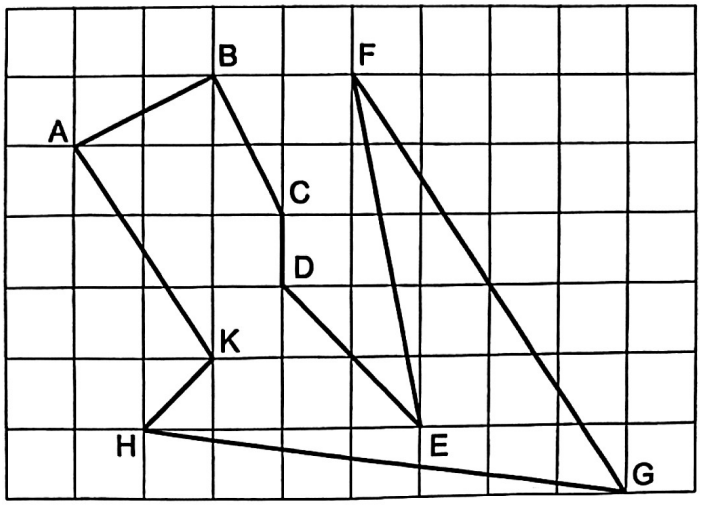
(1) 2.402

(2) 2.404

(3) 2.420

(4) 2.440

4 Which two lines in the square grid below are parallel to each other?



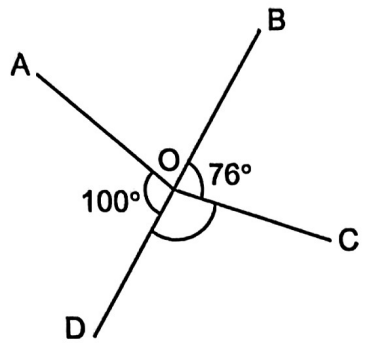
(1) AB and BC

(2) BC and DE

(3) AK and FG

(4) AK and HK

5 BOD is a straight line. $\angle AOD = 100°$ and $\angle BOC = 76°$. Find $\angle COD$.



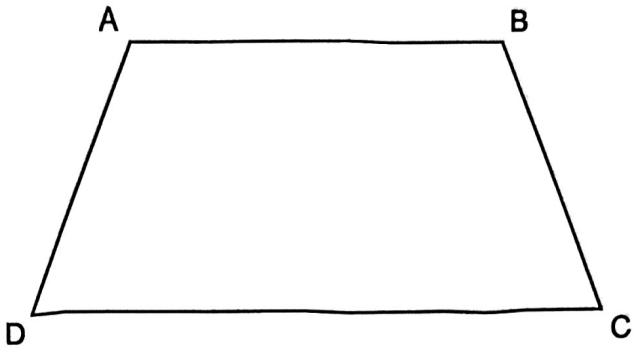
(1) 80°

(2) 92°

(3) 104°

(4) 124°

6 ABCD is a trapezium. AB is parallel to DC.



Which of the following is true?

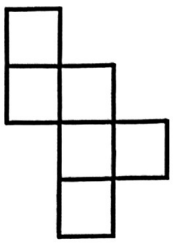
(1) $\angle ABC = \angle ADC$ ✗

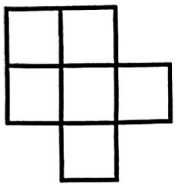
(2) $\angle BAD = \angle BCD$ ✗

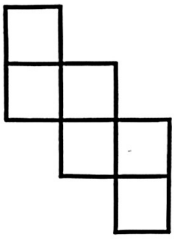
(3) $\angle ABC + \angle BAD = 180°$ ✗

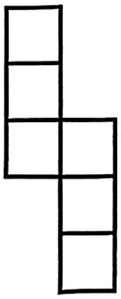
(4) $\angle BAD + \angle ADC = 180°$

7 Which of the following is **not** a net of a cube?

(1) 

(2) 

(3) 

(4) 

8 A fish burger cost $\$m$. A beef burger cost $\$(m + 1)$. The total cost of 4 fish burgers and 1 beef burger is \$21. Find the cost of 1 beef burger.

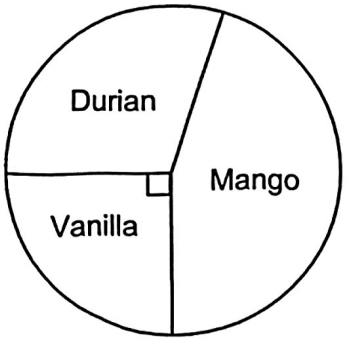
(1) \$5

(2) \$4.40

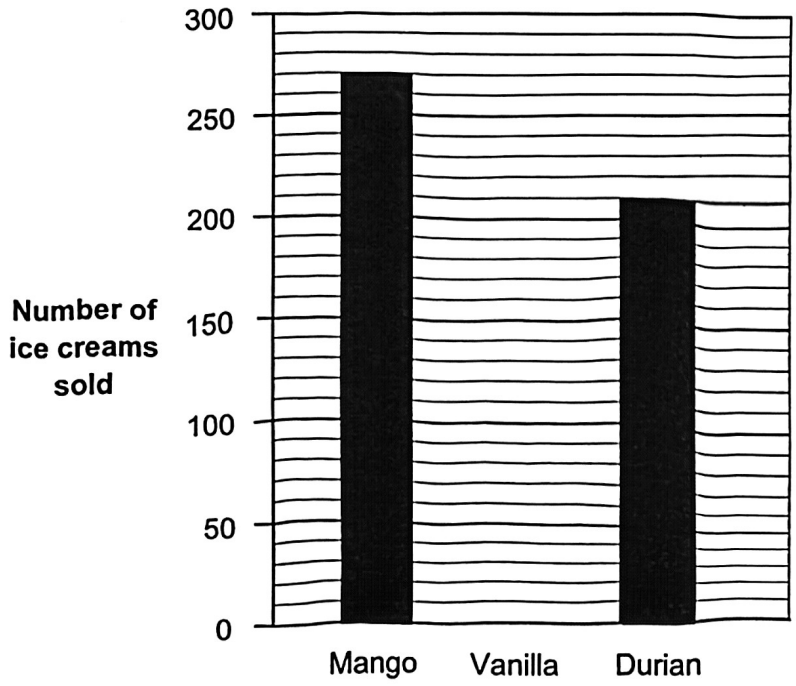
(3) \$4.20

(4) \$4

9 The pie chart below represents the number of mango, vanilla and durian ice creams sold.



The number of ice creams sold is also represented by the bar graph below. The bar for the number of vanilla ice creams sold has not been drawn.



How many vanilla ice creams were sold?

(1) 70

(2) 90

(3) 120

(4) 160

10 The figure below shows a slide in a playground.
Which of the following is likely to be the height of the slide?

(1) 2.5 cm

(2) 25 cm

(3) 2.5 m

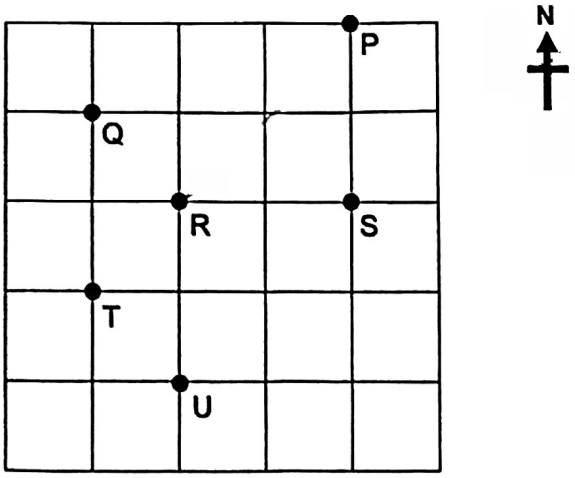
(4) 25 m

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

$$\frac{11}{5}, \quad 2\frac{4}{9}, \quad \frac{5}{2}$$

	Largest		**Smallest**
(1)	$\frac{5}{2}$	$2\frac{4}{9}$	$\frac{11}{5}$
(2)	$\frac{5}{2}$	$\frac{11}{5}$	$2\frac{4}{9}$
(3)	$\frac{11}{5}$	$\frac{5}{2}$	$2\frac{4}{9}$
(4)	$\frac{11}{5}$	$2\frac{4}{9}$	$\frac{5}{2}$

12 The square grid below shows the position of six points.



Olivia stood at a point south-west of P and south-east of Q. She was facing Q and then she turned 135° clockwise. What point did she face in the end?

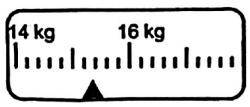
(1) R

(2) S

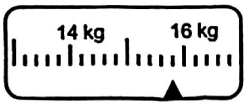
(3) T

(4) U

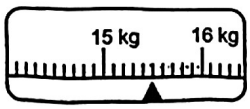
13 The diagrams below show the readings shown on the weighing scales A, B and C.



Scale A



Scale B



Scale C

Which scale has the heaviest mass placed on it and which scale has the lightest mass placed on it?

	Heaviest	Lightest
(1)	B	A
(2)	B	C
(3)	C	A
(4)	C	B

14 Bernice has three ropes, J, K and L. The ratio of the length of Rope J to the length of Rope K is 5 : 8. Rope K is $\frac{4}{9}$ as long as Rope L. What is the ratio of the length of Rope J to the length of Rope L?

(1) 8 : 9

(2) 5 : 9

(3) 8 : 18

(4) 5 : 18

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

	Column A	Column B	Column C	Column D
Row 1		1		2
Row 2	4		3	
Row 3		5		6
Row 4	8		7	
Row 5		9		10
Row 6	12		11	
⋮	⋮	⋮	⋮	⋮

In which column will the number 257 appear?

(1) Column A

(2) Column B

(3) Column C

(4) Column D

Go on to Booklet B

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NANYANG PRIMARY SCHOOL
PRELIMINARY EXAMINATION
2025

PRIMARY 6

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 this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.
6. The use of calculators is **NOT** allowed.

Name: _____ ( )

Class: Primary 6 ( )

Booklet B	/ 25

This booklet consists of 12 printed pages and 4 blank pages.

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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)

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16 Ming baked 32 cupcakes. He gave $\frac{5}{8}$ of the cupcakes to his friend.

How many cupcakes did he give to his friend?

Ans: _____

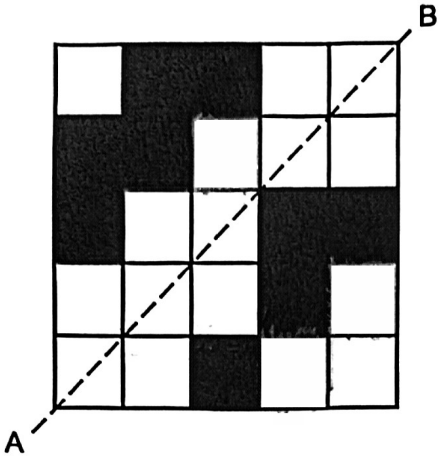
---

17 Convert 72.5 centimetres to metres.

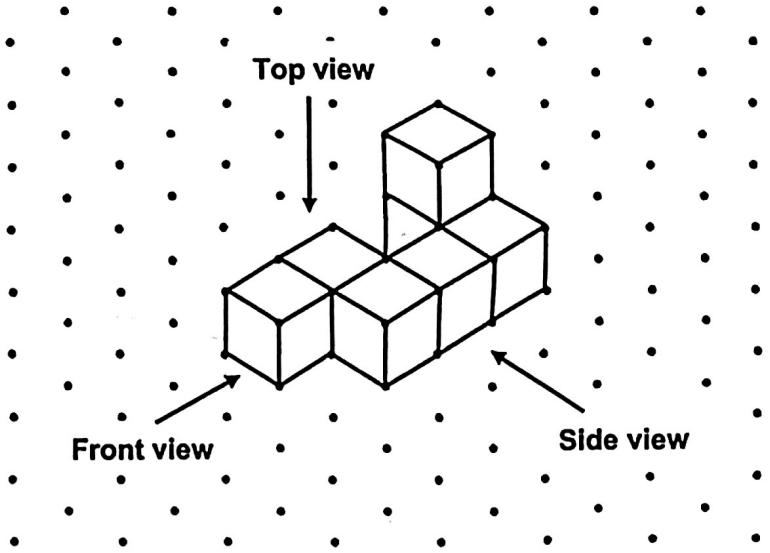
Ans: _____ m

---

18 There are 9 shaded squares in the figure below. Shade 3 more squares to form a symmetric figure with AB as the line of symmetry.

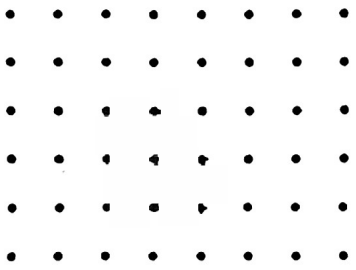


19 The solid below is made up of 7 cubes.

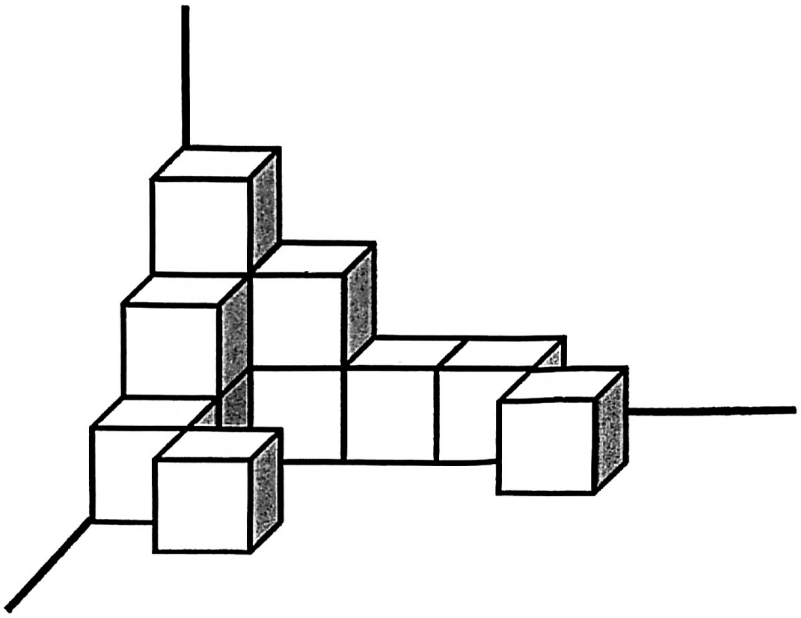


Draw the front view of the solid on the grid below.

Front View



20 The structure below is made up of identical cubes. Without rearranging the cubes, what is the least number of such cubes that must be added to make the structure into a cuboid?



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 Write down all the common factors of 18 and 45.

Ans: _____

22 Find the value of

(a) 5.1 – 3.89

Ans: (a) _____

(b) 2.02 x 2000

Ans: (b) _____

23 The opening hours of KOLA Restaurant are shown below. How long is the restaurant open each day? Give your answer in hours and minutes.

KOLA Restaurant

Open daily
12.15 p.m. to 11.30 p.m.
(Closed from 2.30 p.m. to 5 p.m.)

Ans: _____ h _____ min

---

24 Last year, the population of Town X was 5600.
This year, the population of Town X has increased to 6300.
What is the percentage increase in the population of Town X?

Ans: _____%

---

25 Dan packed 840 books into 2 crates and 3 boxes. The number of books he packed into each crate was twice as many as the number of books he packed into each box. How many books did he pack into each box?

Ans: _____

---

26 There was $\frac{3}{8}$ ℓ of water in a tank at first. Xiao Ming poured $\frac{3}{5}$ ℓ of water into the tank and used $\frac{5}{8}$ ℓ of water from the tank to wash the dishes. How much water was left in the tank?

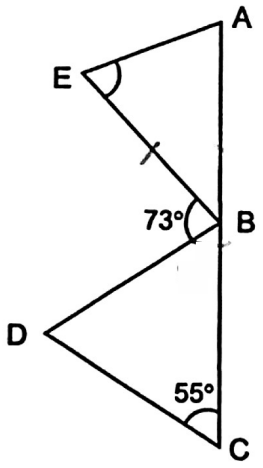
Ans: _____ ℓ

---

27 Ahmad had 13 m of string. He used it to make as many bracelets as he could. He used $\frac{3}{5}$ m of string to make each bracelet. How many metres of the string was left?

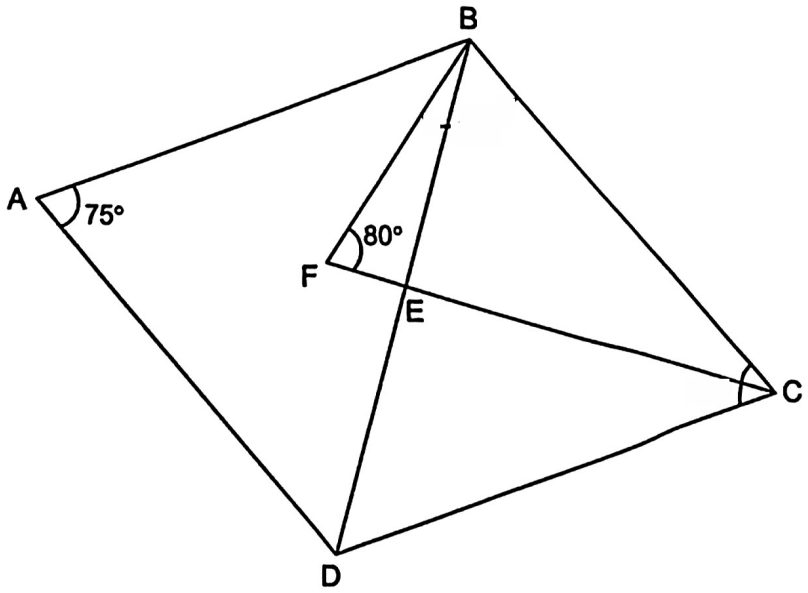
Ans: _____ m

28 ABE and BCD are triangles. ABC is a straight line. AB = BE and BD = CD. ∠EBD = 73° and ∠BCD = 55°. Find ∠BEA.



Ans: _____°

29 ABCD is a rhombus and BC = CF. BED and FEC are straight lines. ∠BFE = 80° and ∠BAD = 75°. Find ∠FBE.



Ans: _____°

30 The mass of Parcel P is x kg. The mass of Parcel Q is $3x$ kg. Parcel R is 3 kg lighter than Parcel Q. If $x = 12$, find the total mass of the 3 parcels.

Ans: _____ kg

End of Paper

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NANYANG PRIMARY SCHOOL
PRELIMINARY EXAMINATION
2025

PRIMARY 6

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 this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.
6. The use of an approved calculator is allowed.

Name: _____ ( )

Class: Primary 6 ( )

Parent's Signature: _____

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

Booklet A	
Booklet B	
Paper 2	
Total	

This booklet consists of 19 printed pages and 1 blank page.

BLANK PAGE

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 Jaslyn had w stickers. Krishna had 34 more stickers than Jaslyn. They had 128 stickers altogether. How many stickers did Krishna have?

Ans: _____

---

2 The following table shows the parking charges at a carpark.

Parking Charges	
For the first hour or less	\$2.70
For every additional $\frac{1}{2}$ hour or less	\$1.20

Reisha parked her car from 8.15 p.m. to 11.00 p.m. on Tuesday.
How much did she have to pay?

Ans: \$_____

---

3 A museum is open to visitors seven days a week. The total number of visitors to the museum from Monday to Friday last week was 1557. The average number of visitors on Monday and Tuesday last week was fewer than the average number of visitors from Wednesday to Friday last week.

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

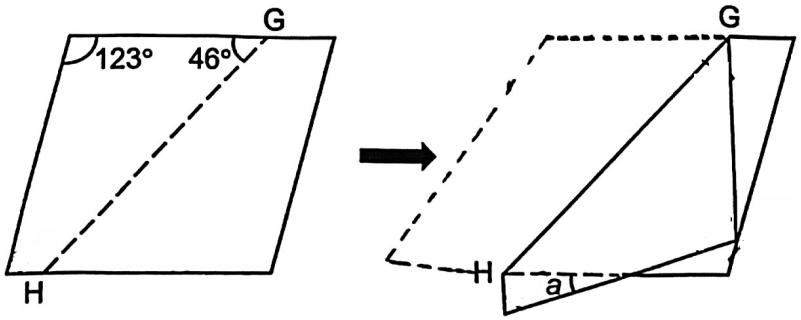
1557 ÷ 5 = 311.4

Statement	True	False	Not possible to tell
The average number of visitors from Monday to Friday last week was 311.4 visitors.	✓		
The average number of visitors from Monday to Sunday last week was 313.5 visitors.			
The average number of visitors from Wednesday to Friday was fewer than 312.			

4 The usual price of a toaster was $80. A discount of 20% was given during a sale. When Mdm Singh bought the toaster online, an additional $10 discount was given after the discount of 20%. What was the total percentage discount given to Mdm Singh for the toaster?

Ans: _____%

5 A piece of paper in the shape of a parallelogram was folded along the dotted line GH as shown below. Find $\angle a$.



Before folding

After folding

Ans: _____°

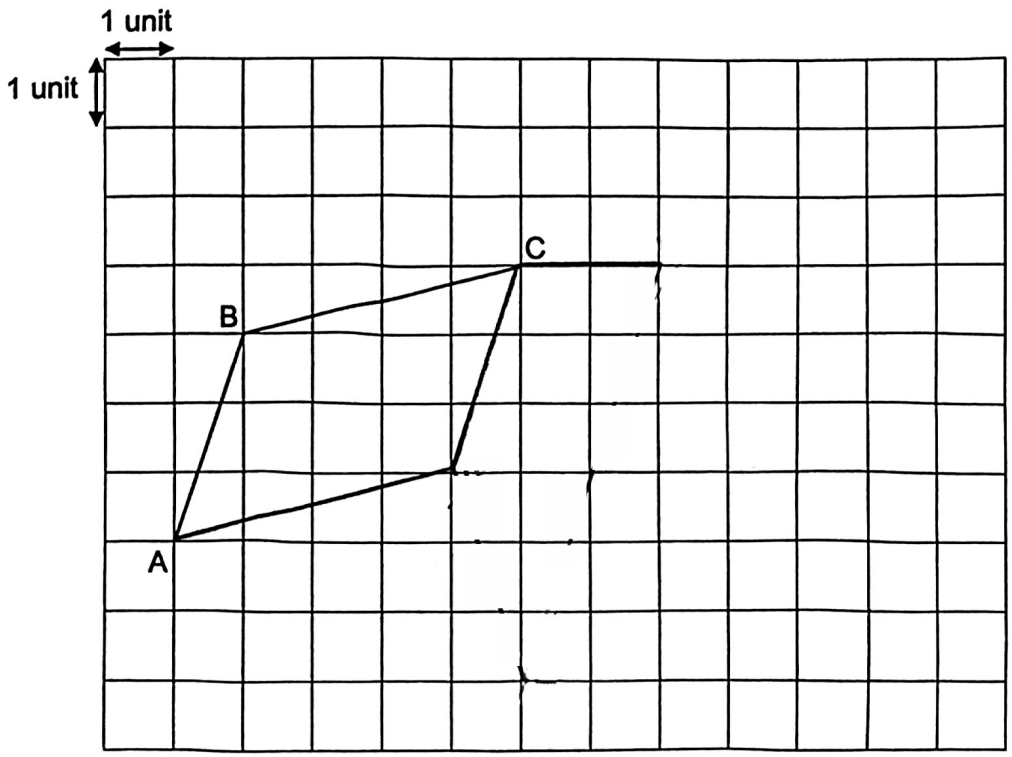
For questions **6** to **17**, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

---

6 In the square grid below, AB and BC are straight lines.

(a) AB and BC form two sides of a parallelogram. Complete the drawing of parallelogram ABCD. [1]

(b) CDEF is a trapezium with EF parallel to DC, DE = CD, EF twice the length of CD and CF = 2 units long. Draw trapezium CDEF on the grid such that it does not overlap with parallelogram ABCD. [2]



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7 E, F and G are 2-digit numbers. The average of these 3 numbers is 46. The value of E is 26. The value of F is 7 times the value of G. Find the value of F.

Ans: _____ [3]

---

8 Mr Soh spent $\frac{1}{5}$ of his money on a pair of shoes and $\frac{3}{4}$ of his remaining money on a bag, a shirt and a hat. The bag cost 3 times as much as the hat. The shirt cost $\frac{1}{2}$ as much as the hat. The pair of shoes cost $48 more than the shirt. How much money did Mr Soh have at first?

Ans: _____ [3]

---

9 Muthu paid $18.50 for a total of 20 curry puffs and sandwiches. He paid $0.50 more for each sandwich than each curry puff. Muthu bought 10 more curry puffs than sandwiches. How much did he pay for each sandwich?

Ans: _____ [3]

10 Town B was exactly halfway between Town A and Town C. At 9 a.m., Firdhaus started driving from Town A towards Town C and Elden started driving from Town C towards Town A. Firdhaus drove at 62 km/h and Elden drove at 61 km/h. They did not change their speeds throughout. When they met each other, their distance from Town B was 2 km.

(a) At what time did Firdhaus meet Elden?

Ans: (a) _____ [1]

(b) What was the distance between Town A and Town C?

Ans: (b) _____ [2]

11 Tank G and Tank H are rectangular containers. Tank H measures 40 cm long, 30 cm wide and 15 cm high. Tank H is $\frac{5}{8}$ full of water.

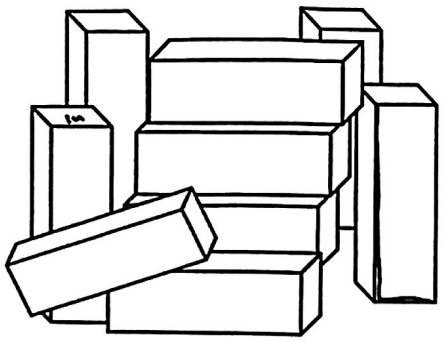
(a) What is the volume of water in Tank H?

Ans: (a) _____ [1]

(b) Tank G is $\frac{3}{5}$ full of water. After all the water from Tank H is poured into Tank G, Tank G is then $\frac{7}{10}$ full of water. The base area of Tank G is 5000 cm^2. Find the height of Tank G.

Ans: (b) _____ [3]

12 Lilian had nine identical wooden cuboids as shown below. The volume of each cuboid is 648 cm^3. She glued these nine cuboids to form a cube.



(a) Find the length of the cube.

Ans: (a) _____ [1]

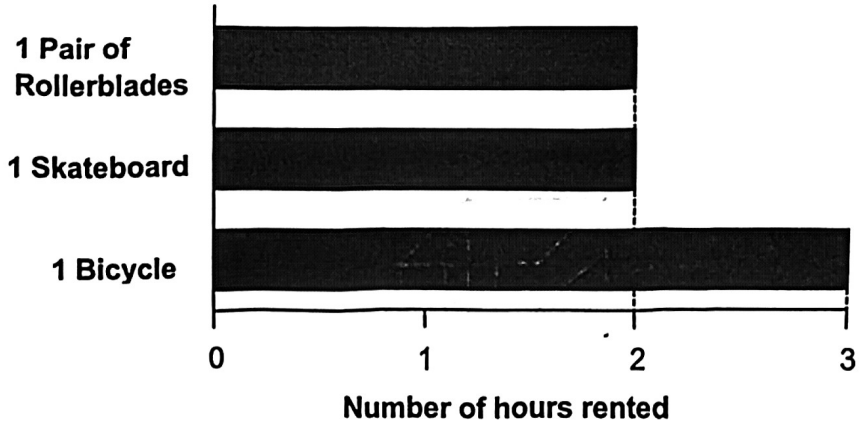
(b) Lillian dipped the cube into a pail of paint. She then separated the cube back into the nine original wooden cuboids. Find the total **unpainted** area of the nine wooden cuboids.

Ans: (b) _____ [3]

13 The table below shows the rental rate of each item.

Rented Item	Rental Rate per hour
Pair of Rollerblades	$10
Skateboard	$4.50
Bicycle	$7

(a) The graph shows the number of hours Amy rented for each item.



Amy rented 1 pair of rollerblades, 1 skateboard and 2 bicycles. The 2 bicycles were rented for the same duration. How much did Amy pay altogether?

Ans: (a) _____ [2]

(b) Bobby paid a total of $43.50 for renting 1 skateboard and 1 pair of rollerblades. Bobby started his rental of both items at the same time and ended his rental of both items at 6.30 p.m. What time did Bobby start his rental?

Ans: (b) _____ [2]

14 At first, Nadia had a total of 329 red paper clips and blue paper clips while her brother had no paper clips. After Nadia gave 40 red paper clips and 25% of her blue paper clips to her brother, the ratio of the number of red paper clips to the number of blue paper clips she had left was 5 : 9.

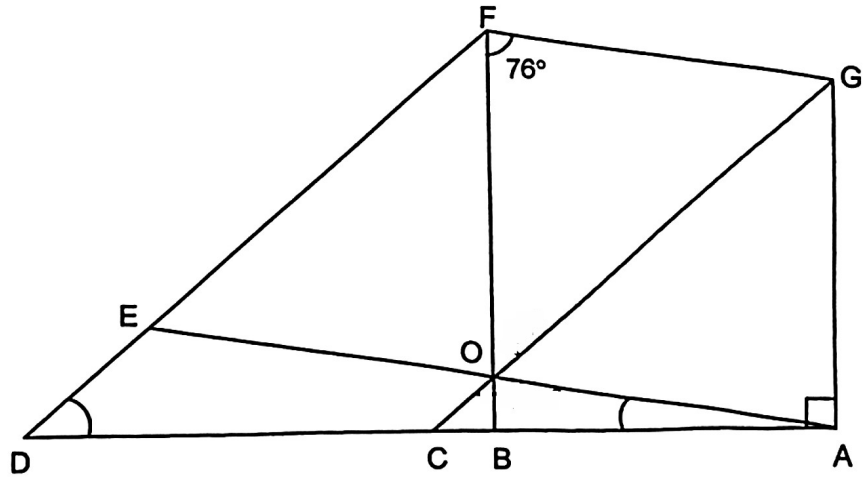
(a) How many blue paper clips did Nadia give to her brother?

Ans: (a) 5 [3]

(b) After her brother used some red paper clips and some blue paper clips, the ratio of the number of red paper clips to the number of blue paper clips that her brother had left became 6 : 11. What was the least number of red paper clips that her brother could have used?

Ans: (b) _____ [1]

15 GAOF is a rhombus and GOEF is a parallelogram. AOE, GOC, FOB, FED and ABCD are straight lines. ∠OFG = 76° and ∠GAB = 90°.



(a) Find ∠EAD.

Ans: (a) _____ [1]

(b) Find ∠CDE.

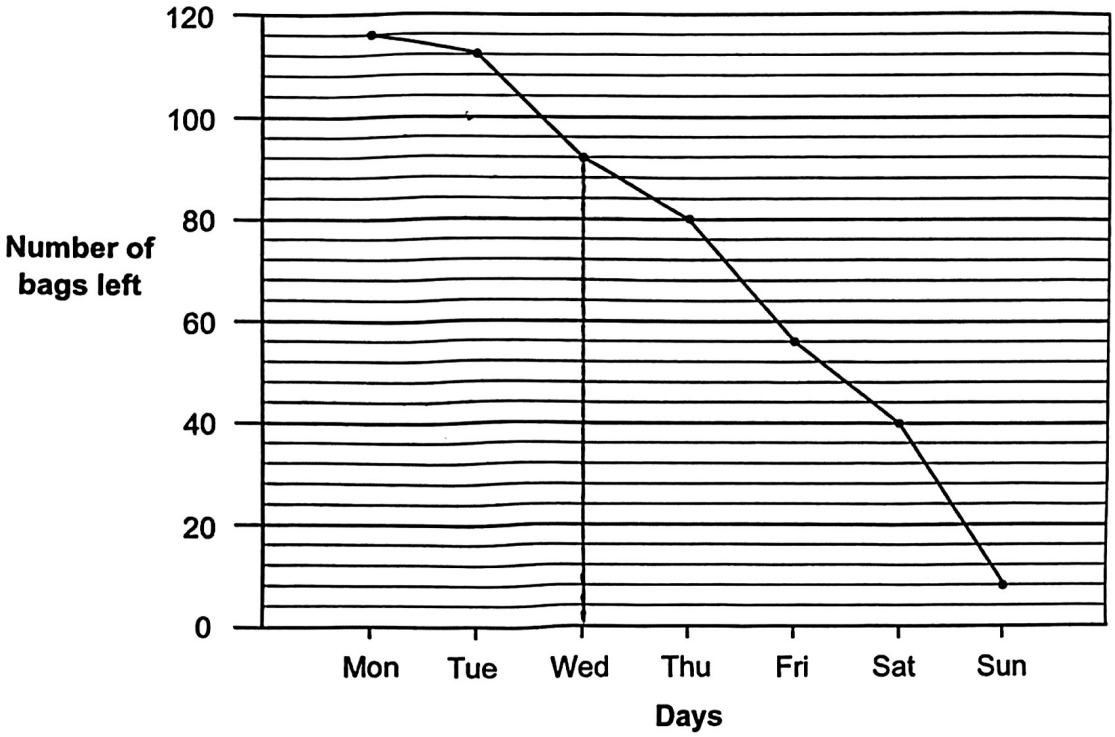
Ans: (b) _____ [2]

(c) Circle the words that describe CDFG correctly in the following statement.

Since DF **(is / is not)** parallel to CG and CD **(is / is not)** parallel to GF, CDFG is a **(parallelogram / trapezium).**

[1]

16 Mr Tan had some bags to sell at his store. The line graph below shows the number of bags left in Mr Tan's store at the end of each day from Monday to Sunday. Mr Tan sold each bag for $18. On Saturday, for every 2 bags sold to a customer, a third bag was given for free. On Sunday, for every bag sold to a customer, a second bag was given for free.



(a) How many bags were left in Mr Tan's store at the end of Wednesday?

Ans: (a) _____ [1]

(b) How much money was collected from the sale of bags on Tuesday?

Ans: (b) _____ [1]

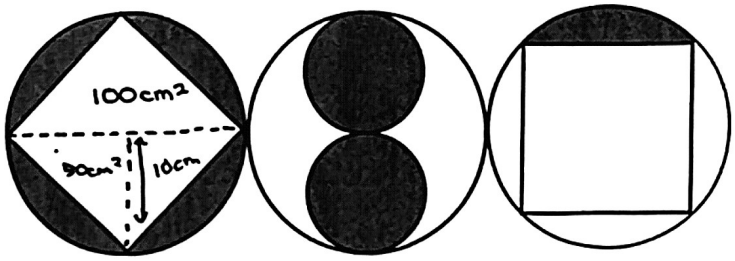
(c) From Tuesday to Sunday, on which day was the most amount of money collected from the sale of bags?

Ans: (c) _____ [1]

(d) What was the least possible amount of money collected from the sale of bags on Saturday?

Ans: (d) _____ [2]

17 The figure is made up of 3 identical big circles, 2 identical small circles and 2 identical squares. The area of each square is 200 cm^2.



(a) Find the radius of the big circle.

Ans: (a) _____ [2]

(b) Find the total area of the shaded parts. (Take $\pi = 3.14$)

Ans: (b) _____ [3]

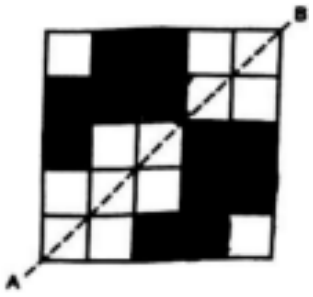
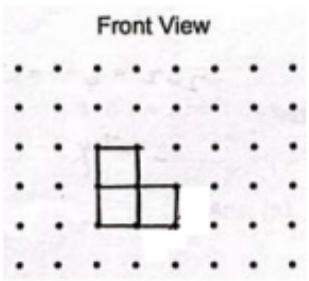
End of Paper

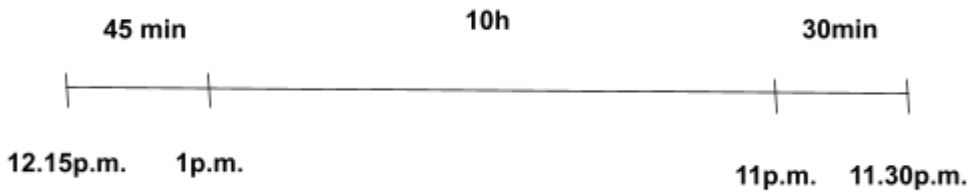
SCHOOL : NANYANG PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATHEMATICS
TERM : PRELIM

PAPER 1 BOOKLET A

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

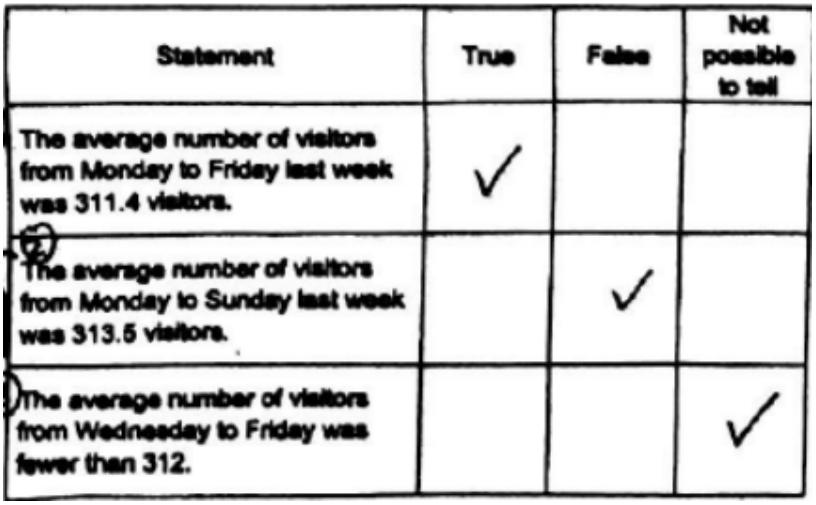
BOOKLET B

Q16	$\frac{5}{8}$ **x 32 = 20**
Q17	**1m = 100 cm** **72.5cm = 0.725m**
Q18	
Q19	

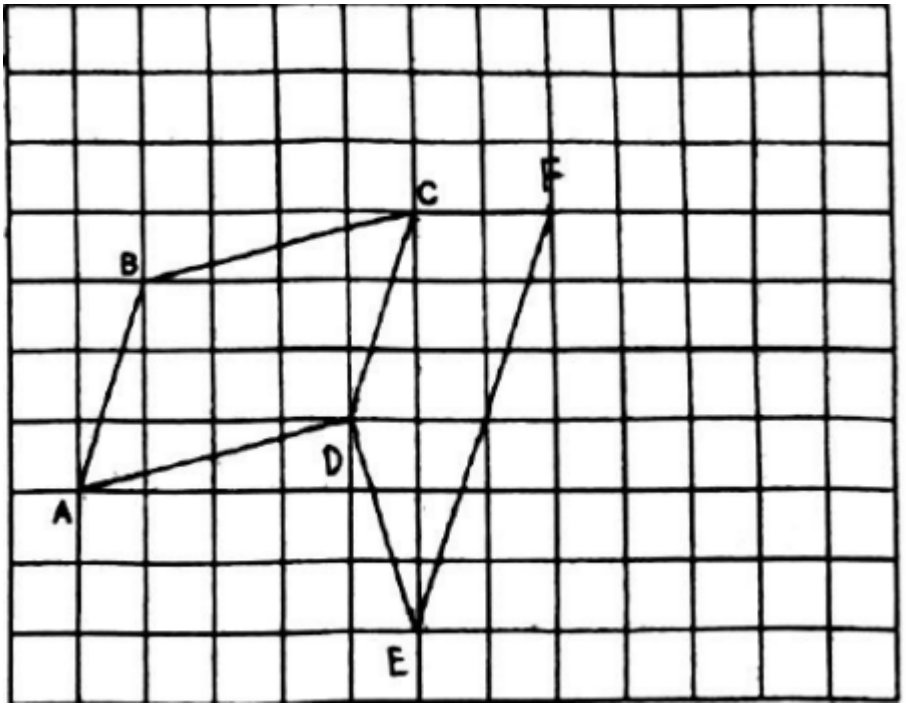
Q20	**4 x 5 x 3 = 60** **60 - 12 = 48**
Q21	**1, 3, 9**
Q22	**(a) 1.21** **(b) 4040**
Q23	 **11h15min - 2h30min = 8h45min**
Q24	**6300 - 5600 = 700** $\frac{700}{5600}$ **x 100% = 12.5%**
Q25	**2 x 2 = 4** **4 + 3 = 7** **840 ÷ 7 = 120**
Q26	$\frac{3}{8} + \frac{3}{5} = \frac{15}{40} + \frac{24}{40} = \frac{39}{40}$ $\frac{5}{8} = \frac{25}{40}$ $\frac{39}{40} - \frac{25}{40} = \frac{14}{40}$
Q27	$13 \div \frac{3}{5} = 13 \times \frac{5}{3} = \frac{65}{3} = 21\frac{2}{3}$ $\frac{2}{3}$ **of** $\frac{3}{5}$ **remaining** $\frac{2}{3} \times \frac{3}{5} = \frac{2}{5}$
Q28	**∠ABE = 180 - 55 - 73 = 52** **∠BEA = (180 - 52) ÷ 2 = 64**
Q29	**∠DBC = ∠CDB = (180 - 75) ÷ 2 = 52.5** **∠FBE = 80 - 52.5 = 27.5**
Q30	**P: x kg** **Q: 3x kg** **R: (3x-3)kg**

	X + 3x + 3x - 3 = 12 + 3(12) + 3(12) - 3 **= 12 + 36 + 36 - 3** **= 81**

PAPER 2

Q1	**W + w + 34 = 128** **2w = 128 - 34 = 94** **W = 94 ÷ 2 = 47** **47 + 34 = 81**
Q2	 **$2.70 + 4($1.20) = $7.50**
Q3	
Q4	**100% = $80** **20% = 80 ÷ 5 = 16** **Total discount = 16+10 = 26** **% discount =** $\frac{26}{80}$**x100% = 32.5%**
Q5	**180 - 123 = 57** **360 - 46 - 46 - 123 = 145** **180 - 145 = 35**
Q6	**(a) (b)**

Statement	True	False	Not possible to tell
The average number of visitors from Monday to Friday last week was 311.4 visitors.	✓		
The average number of visitors from Monday to Sunday last week was 313.5 visitors.		✓	
The average number of visitors from Wednesday to Friday was fewer than 312.			✓

	
Q7	**Total = 46 x 3 = 138** **138 - 26 = 112** **112 ÷ 8 = 14** **F: 14 x 7 = 98**
Q8	**3 - 1 = 2** **2u = $48** **1u = $48 ÷ 2 = $24** **15u = $24 x 15 = $360**
Q9	**5 sandwiches, 15 curry puffs (only possibility)** **0.5 x 5 = 2.5** **18.50 - 2.50 = 16** **16 ÷ 20 = 0.80** **0.80 + 0.50 = $1.30**
Q10	**(a) F travelled extra 2 x 2km = 4km** **Diff in speed: 62 - 61 = 1km/h** **4 ÷ 1 = 4h** **9a.m. -4h-> 1p.m.** **(b) 61 + 62 = 123** **123 x 4 = 492km**
Q11	**(a)** $\frac{5}{8}$ **x 40 x 30 x 15 = 11250**

	(b) $\frac{7}{10}$ **-** $\frac{3}{5}$ **=** $\frac{1}{10}$ $\frac{1}{10}$ **→ 11250** $\frac{10}{10}$ **→ 11250 x 10 = 112500** **112500 ÷ 5000 = 22.5cm**
Q12	**(a) 648 x 9 = 5832** $\sqrt[3]{5832}$ **= 18cm** **(b) Surface area of 1 cuboid = 6 x 6 x 18 = 648** **18 x 6 x 4 + 6 x 6 x 2 = 504** **504 x 9 = 4536** **4536 - 1944 = 2592**cm^2
Q13	**(a) 10 + 4.5 + 7 x 6 = $71** **(b) 4.5 + 10 = 14.50** **43.50 ÷ 14.50 = 3** **6.30p.m. 3 hours before is 3.30p.m.**
Q14	**(a) 5u + 40 + 12u = 329** **17u + 40 = 329** **17u = 329 - 40 = 289** **1u = 289 ÷ 17 = 17** **3u = 17 x 3 = 51** **(b) R:B** **6:11** **24:44** **40 - 24 = 16**
Q15	**(a) 90 - 76 = 14** **(b) ∠FOG = ∠FGO = (180-76) ÷ 2 = 52 = ∠FEO** **∠DEA = 180 - 52 = 128** **∠CDE = 180 - 128 - 14 = 38** **(c)** Since DF (is / is not) parallel to CG and CD (is / is not) parallel to GF, CDFG is a (parallelogram / trapezium).
Q16	**(a) 92** **(b) 116 - 112 = 4**

	4 x 18 = $72 **(c) Friday** **(d) 4 x 4 = 16** **16 ÷ 3 = 5R1** **5 x 2 + 1 = 11** **11 x 18 = $198**
Q17	**(a) 200 ÷ 4 = 50** $\frac{1}{2}$ **x r x r = 50** **r x r = 100** $\sqrt{100}$ **= 10 cm** **(b) Area of big circle = 10 x 10 x 3.14 = 314** **Area of small circle = 5 x 5 x 3.14 = 78.5** **314 - 200 = 114** **78.5 x 2 + 114 x** $\frac{5}{4}$ **= 299.5**cm^2