RAFFLES GIRLS' PRIMARY SCHOOL
PRELIMINARY EXAMINATION
PRIMARY 6
2025

MATHEMATICS
PAPER 1
(BOOKLET A)

Name: _____ **Date: 22 August 2025**

Class: P6 _____ **Total Time for Booklets A and B : 1 hour**

INSTRUCTIONS TO CANDIDATES

1. **Write your index number in the box at the top right-hand corner.**
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.**

Paper 1	45
Paper 2	55
Total score **out of 100**	
Parent's signature	

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)

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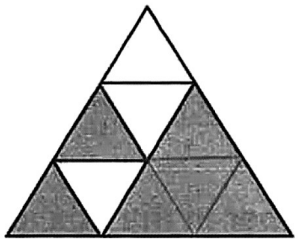
1. What does the digit 9 in 190 284 stand for?

   (1) 90
   (2) 900
   (3) 9000
   (4) 90 000

2. The figure is made up of equilateral triangles.
   What fraction of the figure is shaded?

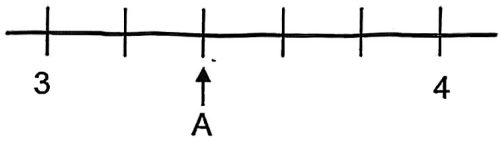


   (1) $\frac{1}{3}$
   (2) $\frac{1}{2}$
   (3) $\frac{2}{3}$
   (4) $\frac{5}{8}$

3. Which of the following is equal to $2\frac{4}{5}$?

   (1) $\frac{8}{5}$
   (2) $\frac{11}{5}$
   (3) $\frac{13}{5}$
   (4) $\frac{14}{5}$

4. In the number line, what is the value represented by A?



(1) 3.02

(2) 3.04

(3) 3.2

(4) 3.4

5. 40% of a number is 80. What is the number?

(1) 32

(2) 50

(3) 120

(4) 200

6. Which of the following is the same as 8050 m?

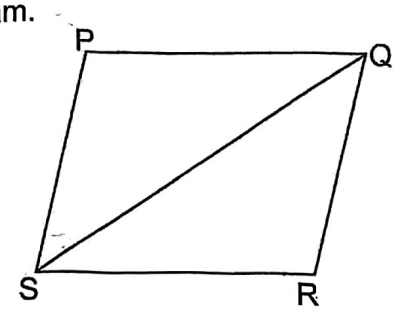
(1) 8 km 5 m

(2) 8 km 50 m

(3) 80 km 5 m

(4) 80 km 50 m

7. PQRS is a parallelogram.



Which of the following statement(s) is/are **true**?

A. $\angle SPQ = \angle SRQ$

B. $\angle PSQ = \angle QSR$

C. PQS is an isosceles triangle.

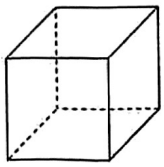
(1) A only

(2) A and B

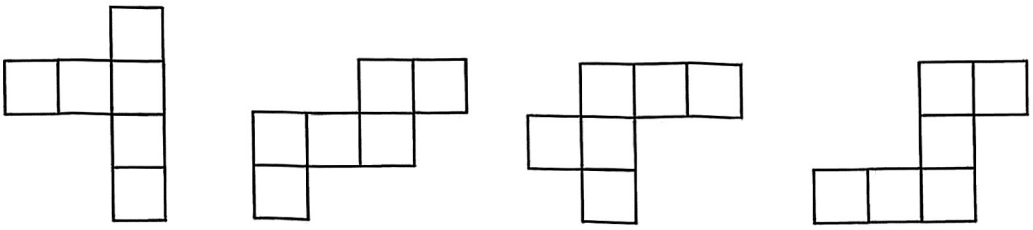
(3) A and C

(4) All of the above

8. The figure shows a cube.

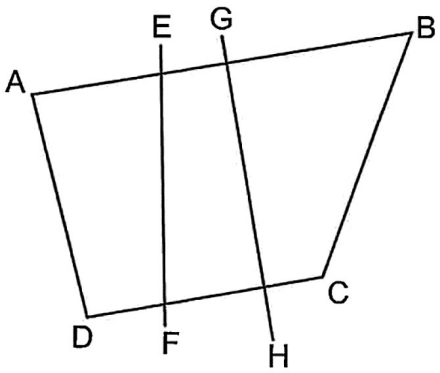


Which of the following is a net of the cube?



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

9. Which two lines are perpendicular to each other?



(1) DC and GH

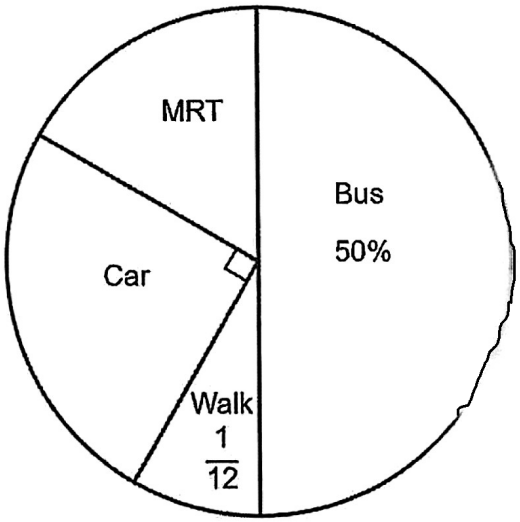
(2) DC and EF

(3) AB and DC

(4) AB and AD

*Use the information below to answer Questions **10** and **11**.*

The pie chart shows the different ways a group of students goes to school.



10. What fraction of the ~~Primary 6~~ students go to school by MRT?

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

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

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

(4) $\frac{5}{12}$

11. What is the ratio of the number of students who travel to school by bus to the number of students who walk to school?

(1) 1 : 5

(2) 1 : 6

(3) 5 : 1

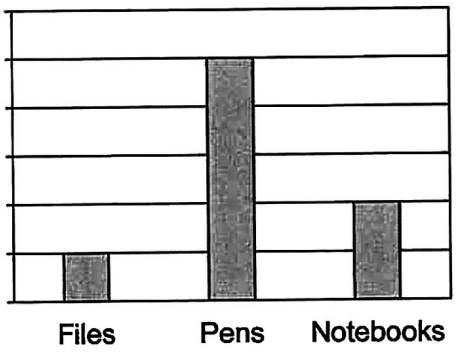
(4) 6 : 1

12. Arrange the mass from the heaviest to the lightest.

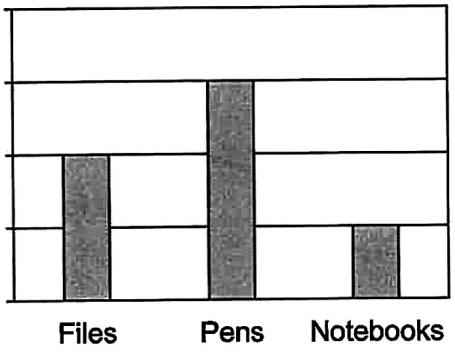
7.45 kg	7 kg 95 g	$7\frac{3}{5}$ kg

	Heaviest		Lightest
(1)	$7\frac{3}{5}$ kg	7 kg 95 g	7.45 kg
(2)	$7\frac{3}{5}$ kg	7.45 kg	7 kg 95 g
(3)	7.45 kg	$7\frac{3}{5}$ kg	7 kg 95 g
(4)	7 kg 95 g	7.45 kg	$7\frac{3}{5}$ kg

13. The bar graphs show the sale of each type of stationery in a shop for two days. The scale of the graphs is not shown.



Day 1

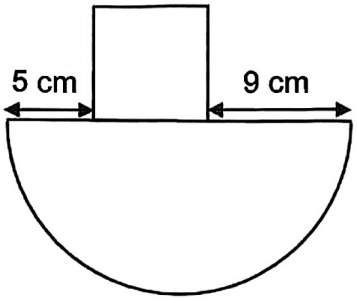


Day 2

The total number of items sold on Day 1 was twice the total number sold on Day 2. What is the ratio of the number of pens sold on Day 1 to Day 2?

(1) 1 : 2
(2) 2 : 1
(3) 5 : 2
(4) 5 : 3

14. The figure shows a semi-circle and a square. The diameter of the semi-circle is 21 cm. What is the perimeter of the figure? (Take $\pi = \frac{22}{7}$)



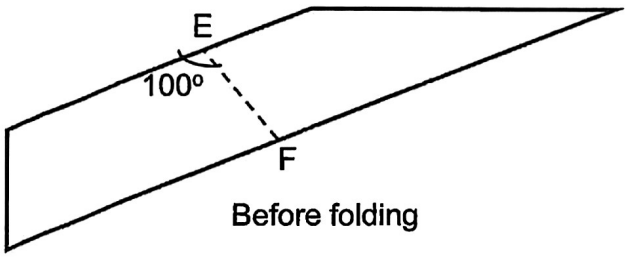
(1) 54 cm

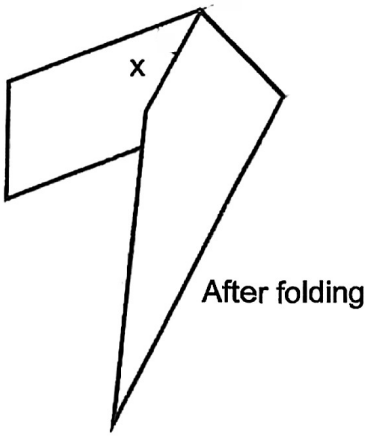
(2) 66 cm

(3) 68 cm

(4) 101 cm

15. A piece of paper in the shape of a trapezium is folded along dotted line EF. Find $\angle x$.





(1) 20°

(2) 40°

(3) 60°

(4) 80°

☺ Please check your work carefully ☺

RAFFLES GIRLS' PRIMARY SCHOOL
PRELIMINARY EXAMINATION
PRIMARY 6
2025

MATHEMATICS
PAPER 1
(BOOKLET B)

Name: _____ ( ) **Date: 22 August 2025**

Class: P6 _____ **Total Time for Booklets A and B: 1 hour**

INSTRUCTIONS TO CANDIDATES

1. **Write your index number in the box at the top right-hand corner.**
2. **Do not turn over this page until you are told to do so.**
3. **Follow all instructions carefully.**
4. **Answer all questions.**
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7. **Do not use correction fluid/tape.**
8. **Do not use highlighters on any part of your answers.**

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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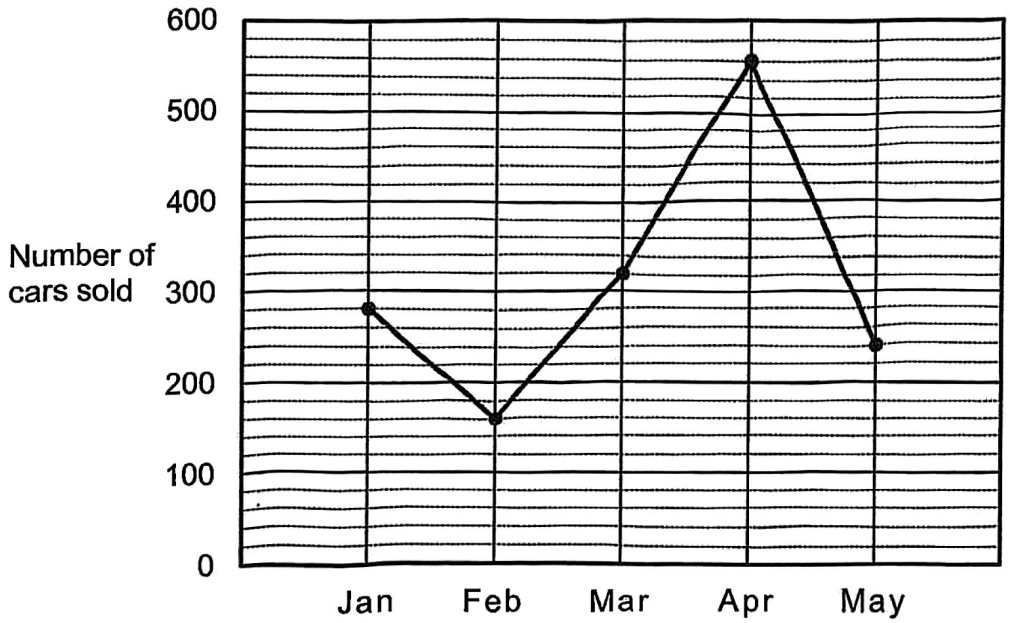
16. Find the value of $\frac{8}{9} \div 6$. Give your answer in the simplest form.

Ans: _____

17. Jones started work at 9.30 a.m. and ended work at 5.50 p.m.
How long did he work?

Ans: _____ h _____ min

18. The graph shows the number of cars sold each month from January to May.

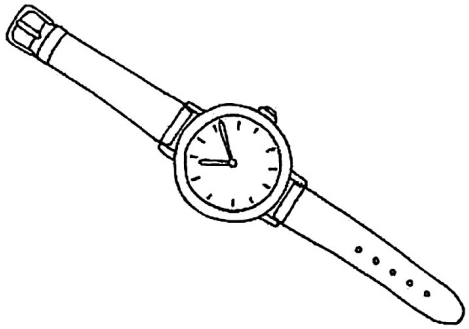


What was the increase in the number of cars sold from March to April?

Ans: _____

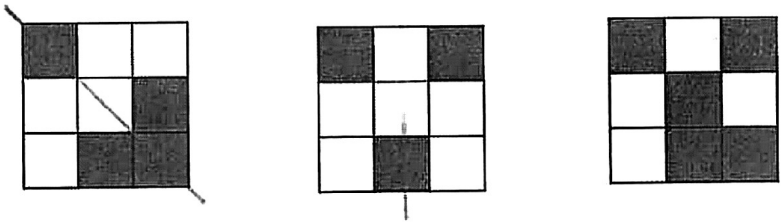
1

19. A watch costs $200 before 9% GST. What is the cost of the watch including GST?



Ans: $ _____

20. Figures X, Y and Z are each made up of 9 squares.



X Y Z

Name the figure(s) that has/have a line of symmetry.

Ans: _____

2

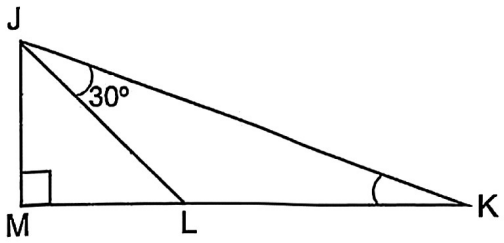
Questions **21** to **30** carry 2 marks each. Show your workings clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(20 marks)

21. Find the value $8w - \frac{2w}{3} + 5$ when $w = 3$.

Ans: _____

22. JKM is a right-angled triangle and JLM is an isosceles triangle. Find ∠JKL.



Ans: _____°

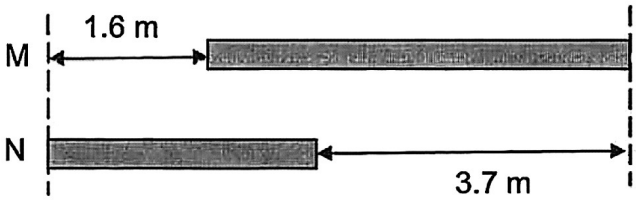
23. (a) Express $1\frac{3}{25}$ as a decimal

Ans: (a) _____

(b) Round 20.85 to the nearest tenth.

Ans: (b) _____

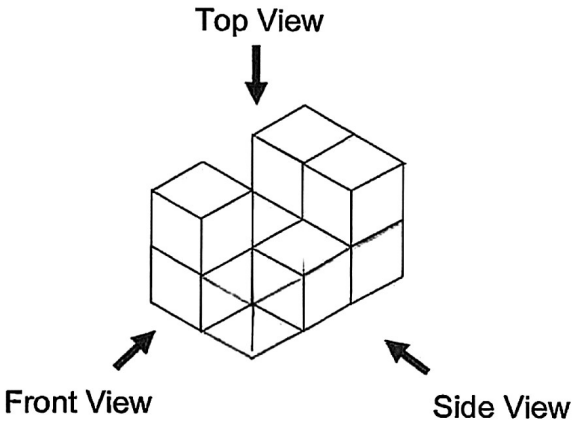
24. The ratio of the length of rod M to the length of rod N is 8 : 5.
Find the length of rod N.



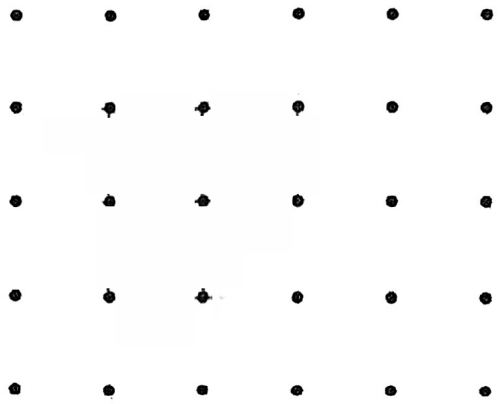
Ans: _____ m

4

25. The solid shown is made up of 8 cubes.



(a) Draw the front view of the solid on the grid.

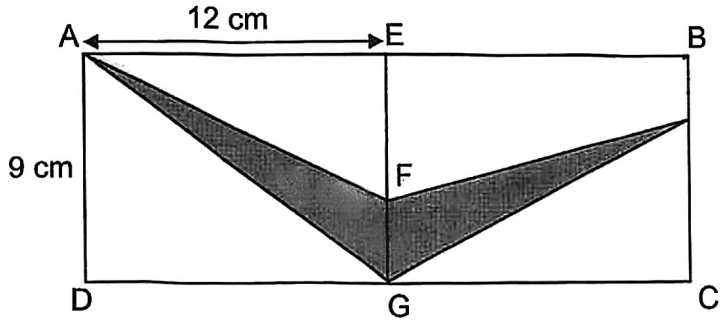


(b) Find the greatest number of cubes that can be added to the solid without changing the front view and the side view.

Ans: (b) _____

2

26. AEGD and EBCG are two identical rectangles, each measuring 12 cm by 9 cm. The length of EF is twice the length of FG. Find the area of the shaded parts.



Ans: _____ cm^2

27. At a competition, Yuta swam $\frac{4}{5}$ of the distance in 5 min. She swam the remaining 80 m in 3 min. What was her average speed for the whole distance?

Ans: _____ m/min

4

28. The average of three different 3-digit numbers is 120. The 1st number is 110. The 2nd and 3rd numbers have the smallest possible difference. What are the two numbers?

Ans: _____ , _____

29. The first 18 numbers of a number pattern are shown below.

2 , 0 , 1 , 1 , 0 , 3 , 2 , 0 , 1 , 1 , 0 , 3 , 2 , 0 , 1 , 1 , 0 , 3 ...

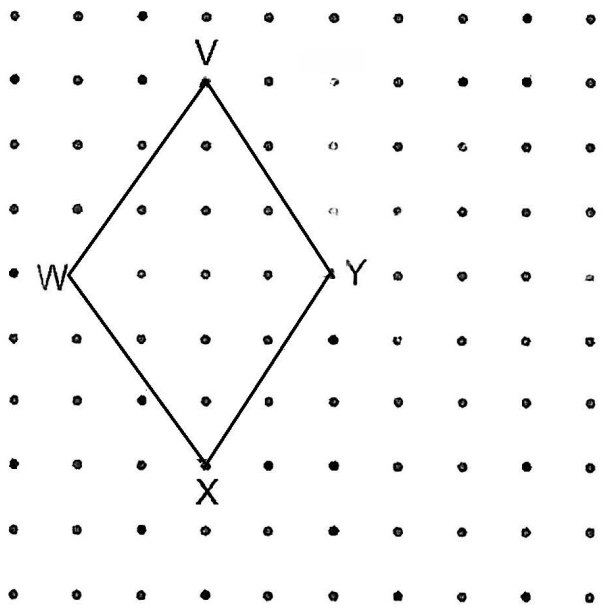
1st 18th

The sum of all the numbers in the pattern is 32. What is the greatest possible number of digit "0" in the pattern?

Ans: _____

4

30. A rhombus VWXY is drawn on a square grid.



By joining dots on the grid with straight lines,

(a) draw a triangle WYZ such that its area is half of the rhombus VWXY.

(b) draw a rhombus YSTU such that it has a longer perimeter than rhombus VWXY. Rhombus YSTU must not overlap with triangle WYZ.

End of Paper
☺ Please check your work carefully ☺

2

RAFFLES GIRLS' PRIMARY SCHOOL
PRELIMINARY EXAMINATION
PRIMARY 6
2025

MATHEMATICS
PAPER 2

Name: _____ ( ) **Date: 22 August 2025**

Class: P6 _____ **Total Time: 1 hour 30 minutes**

INSTRUCTIONS TO CANDIDATES

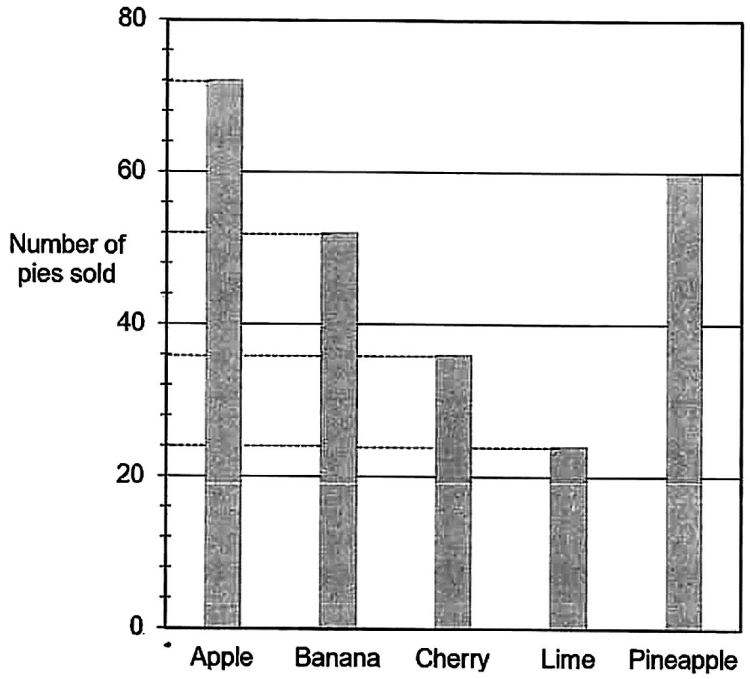
1. Write your index number in the box at the top right-hand corner.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Use a dark blue or black ballpoint pen to write your answers in the space provided for each question.
6. The use of calculators is ~~NOT~~ allowed
7. Do not use correction fluid/tape.
8. Do not use highlighters on any part of your answers.

Score	/ 55

Questions **1** to **5** carry 2 marks each. Show your workings clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

1. A baker baked a total of 300 pies to sell. The bar graph shows the number of each type of pie that was sold.



(a) How many banana and lime pies were sold altogether?

Ans : (a) _____ [1]

(b) What was the total number of pies left **unsold**?

Ans : (b) _____ [1]

2. Mr Johnson was paid for working as an assistant at the rate shown in the table. He was paid a total of $646 for working 58 hours last week. The rate for the first 50 hours was covered by an ink blot.

Number of hours per week	Rate
First 50 hours	 per hour
Each additional hour	$12 per hour

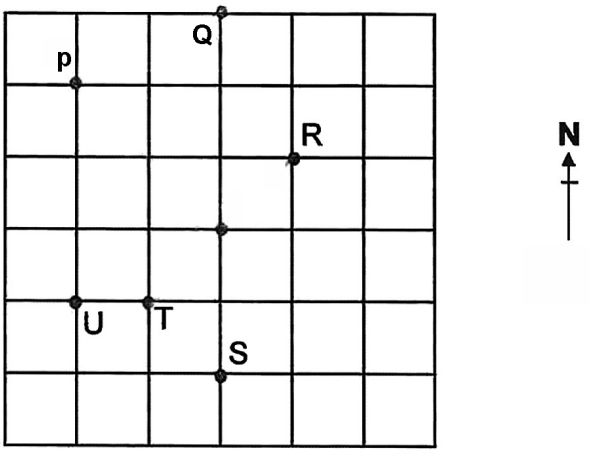
How much was he paid each hour for the first 50 hours?

Ans : $ _____ [2]

3. Mrs Lim has black, purple and red markers. The number of black markers is 3 times the number of purple markers. $\frac{1}{10}$ of the markers are red. What fraction of the Mrs Lim's markers are black?

Ans : _____ [2]

4. The square grid shows the position of seven points.



(a) Raju stood at point X facing P. He turned 90°. Write down all the possible points that he could be facing.

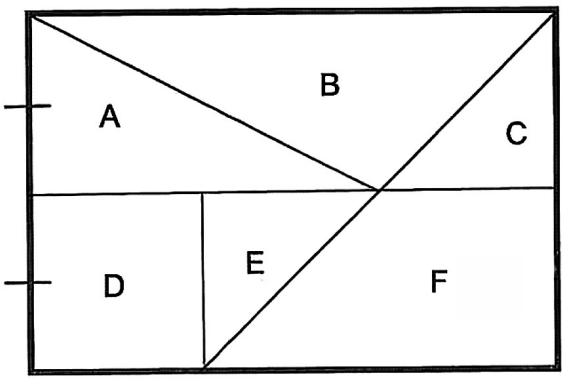
Ans : (a) _____ [1]

(b) Soo Yan stood at one of the points facing X. She turned 45° clockwise and faced U. Which point was Soo Yan at?

Ans : (b) _____ [1]

5. A rectangle is divided into 6 parts, A, B, C, D, E and F.

D is a square and is $\frac{1}{6}$ of the figure. Triangles E and C are identical.



(a) Which two parts will add up to form $\frac{1}{2}$ of the rectangle?

Ans : (a) _____and _____ [1]

(b) Which two parts will add up to form $\frac{5}{12}$ of the figure?

Ans : (b) _____and _____ [1]

For questions **6** to **17**, show your workings 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. Jared is 5*y* years old now. His sister is twice as old as him. His brother is 8 years older than his sister.

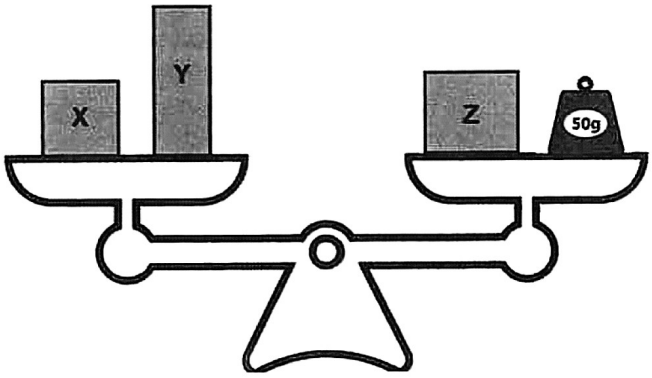
(a) How old is his brother now? Give your answer in terms of *y*.

Ans: (a) _____ [1]

(b) What was the total age of the three siblings 2 years ago? Give your answer in terms of *y*.

Ans: (b) _____ [2]

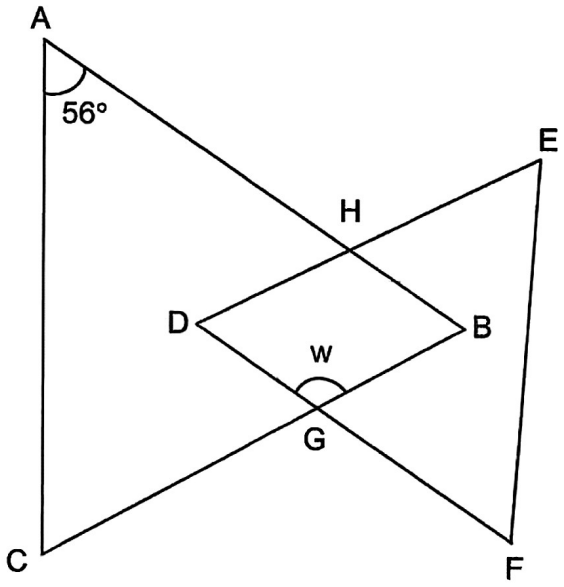
7. The figure shows three boxes, X, Y, Z and a 50-gram weight on a balance scale.



The average mass of the the 3 boxes is 140 g. The mass of Box X is 40 g heavier than Box Y. What is the mass of Box Y?

Ans : _____ [3]

8. ABC is an isosceles triangle. AB = AC. DEF is an equilateral triangle. AB is parallel to DF.



(a) Find ∠w.

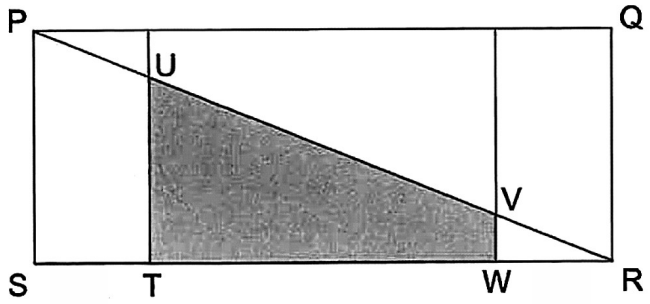
Ans: _____ [2]

(b) Circle the words that describe DHBG correctly in the following statement.

DHBG **(is / is not)** a parallelogram because DH **(is / is not)** parallel to GB.

[1]

9. PQRS is a rectangle. The length of PS is twice the length of ST. The ratio of the lengths ST : TW : WR is 1 : 3 : 1. The perimeter of the unshaded part of the figure is 56 cm longer than the shaded area TUVW. Find the shaded area TUVW.



(a) The perimeter of the unshaded part is 56 cm longer than the perimeter of the shaded part. The ratio of SA : AB : BR is 1 : 3 . 1.
Find the length of AB.

Ans: (a) _____ [2]

(b) Find the area of the shaded part.

Ans: (b) _____ [1]

3

10. Linda baked some blueberry and chocolate tarts. At first, the number of blueberry tarts was $\frac{2}{3}$ the number of chocolate tarts. $\frac{1}{4}$ of the blueberry tarts and $\frac{4}{9}$ of the chocolate tarts were given away. The number of chocolate tarts left was 12 more than the number of blueberry tarts left.

How many tarts did Linda bake?

Ans : _____ [3]

11. Mei and Ann each used the same amount of flour to bake some muffins and doughnuts. Mei made 108 doughnuts and had 640 g of flour left. Ann made 48 muffins and had 1.96 kg of flour left. The mass of flour used to make 3 muffins was the same as that for making 4 doughnuts.

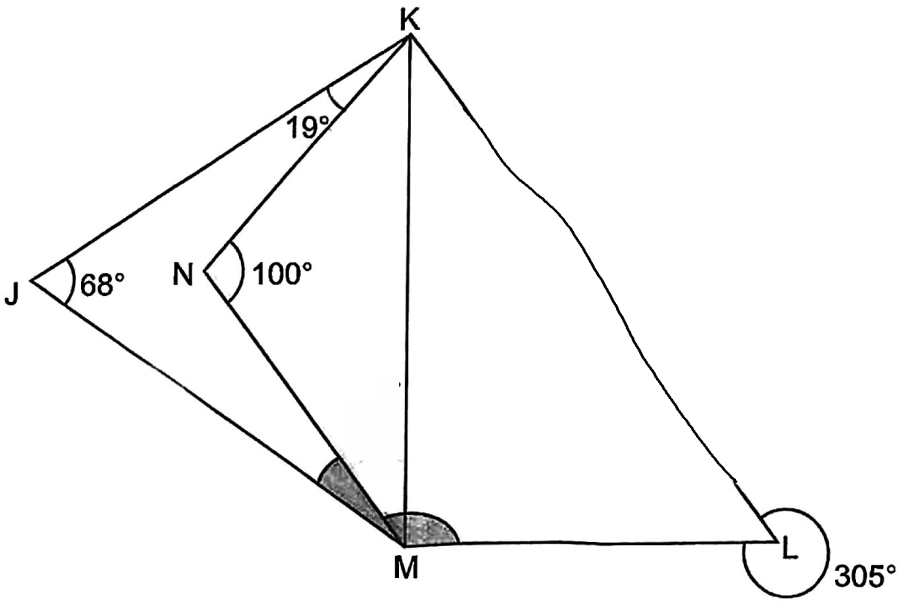
(a) What was the mass of flour used to make 1 doughnut?

Ans: (a) _____ [2]

(b) Mei and Ann decided to combine both their remaining flour to make doughnuts. What was the most number of doughnuts they could make altogether?

Ans: (b) _____ [1]

12. JKM and NKM are triangles. NKLM is a trapezium with NM parallel to KL.



(a) Find ∠NML.

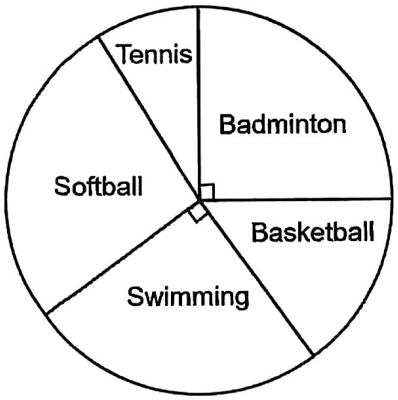
Ans: (a) _____ [2]

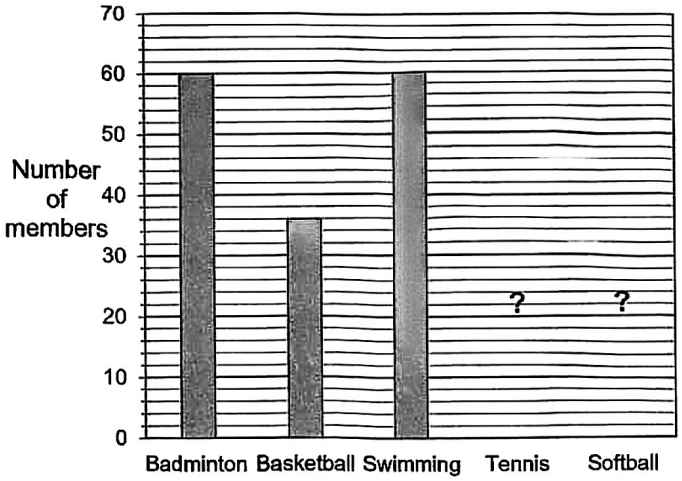
(b) Find ∠JMN.

Ans: (b) _____ [2]

4

13. The pie chart shows the favourite sport of all the members of a sports club. The information is also represented by a bar graph. The bars for tennis and softball are not shown.





(a) What is the total number of members in the sports club?

Ans: (a) _____ [1]

(b) What percentage of the members chose basketball as their favourite sport?

Ans: (b) _____ [1]

(c) The number of members who chose tennis as their favourite sport was $\frac{1}{3}$ of the number of those who chose softball. How many members chose tennis as their favourite sport?

Ans: (c) _____ [2]

14. The table shows the ticket prices for a theme park.

Types of Tickets	Prices
Child	$15
Adult	$24
Bundle deal A (1 adult and 1 child)	$35
Bundle deal B (2 adults and 1 child)	$54

(a) Ramu bought 3 adult tickets and 5 children tickets. What was the least amount he could have paid?

Ans: (a) _____ [1]

(b) Timothy purchased his tickets online and enjoyed a 10% discount. He bought tickets for 4 adults and 3 children. What was the least amount he could have paid?

Ans: (b) _____ [1]

(c) Mr and Mrs Tan went to the theme park with their children. They spent $99 on tickets. How many children went to the theme park?

Ans: (c) _____ [3]

15. Nisa bought an equal number of apples and oranges. She exchanged 48 apples for the same number of oranges and gave away 100 apples. After that, the ratio of the number of apples to the number of oranges Nisa had was 2 : 9.

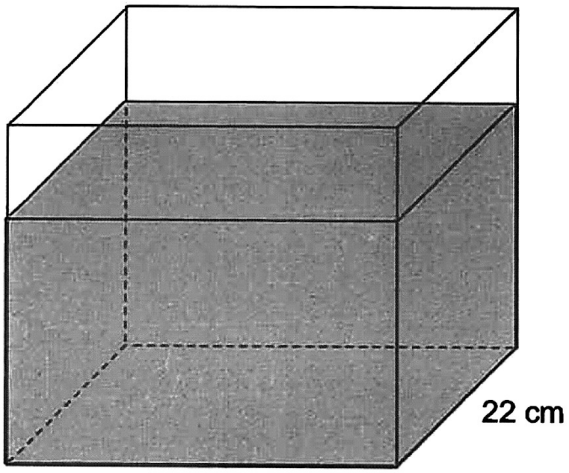
(a) What was the total number of fruits Nisa had in the end?

Ans: (a) _____ [2]

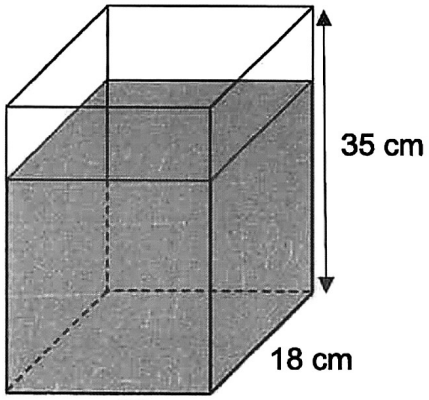
(b) She then packed the remaining fruits into as many bags as possible. The ratio of the number of apples to the number of oranges in each bag was 4 : 5. How many oranges were left unpacked?

Ans: (b) _____ [2]

16. There was a total of 28 040 cm^3 of water in rectangular tanks X and Y at first.
The height of the water level in tank X was 8 cm more than that of tank Y.



Tank X



Tank Y

(a) Find the height of the water level in tank Y.

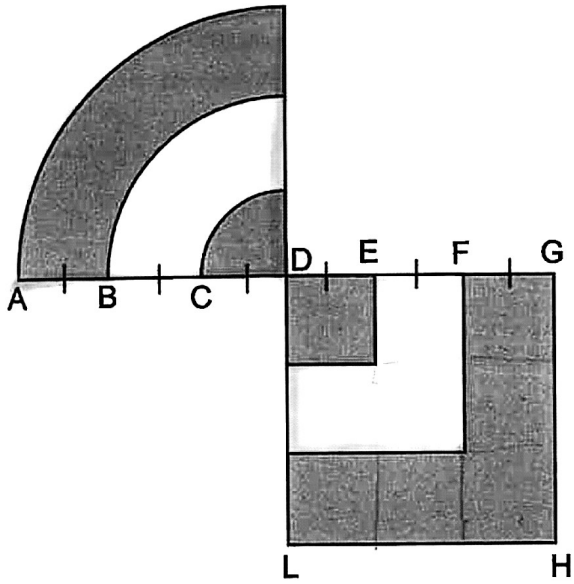
Ans: (a) _____ [3]

(b) Kenneth poured some water from tank X into tank Y to fill it to the brim.
What was the percentage decrease in the volume of water in tank X?
Round your answer to 1 decimal place.

Ans: (b) _____ [2]

5

17. The figure shows three overlapping quarter circles and three overlapping squares of different sizes. AB = BC = CD = DE = EF = FG.



(a) The area of the unshaded part in Figure DGHL is 48 cm^2. Find the length of DE.

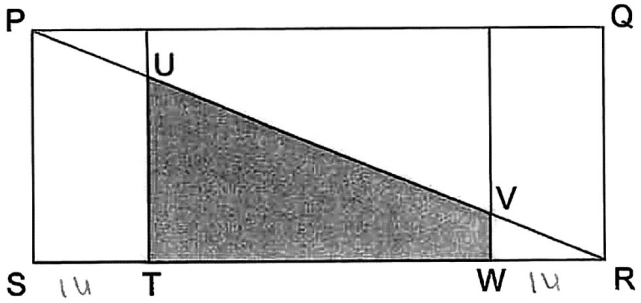
Ans: (a) _____ [2]

(b) Find the area of the shaded part of the figure.
(Take π = 3.14)

Ans: (b) _____ [3]

End of Paper
Please check your work carefully ☺

9. PQRS is a rectangle. The length of PS is twice the length of ST. The ratio of the lengths ST : TW : WR is 1 : 3 : 1. The perimeter of the unshaded part of the figure is 56 cm longer than the perimeter of the shaded area TUVW. Find the shaded area TUVW.



unshaded

Ans: _____ [3]

3

SCHOOL : RAFFLES GIRLS' PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATHS
TERM : MGS P6 PRELIM

Paper 1 Booklet A

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

Paper 1 Booklet B

Q16

$$\frac{8}{9} \div \frac{6}{1} = \frac{8}{9} X \frac{1}{6}$$
$$= \frac{8}{54} = \frac{4}{27}$$

Q17

7h + 30min + 50min = **8h 20min**

Q18

560 – 320 = 240

Q19

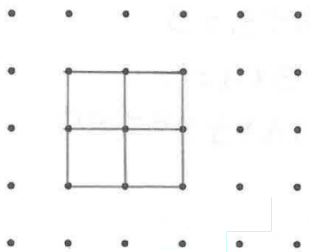
200 x 90% = 200 x $\frac{9}{100}$
= 100 x 2 x 0.09
= 2 x 9
= 18
200 + 18 = 218

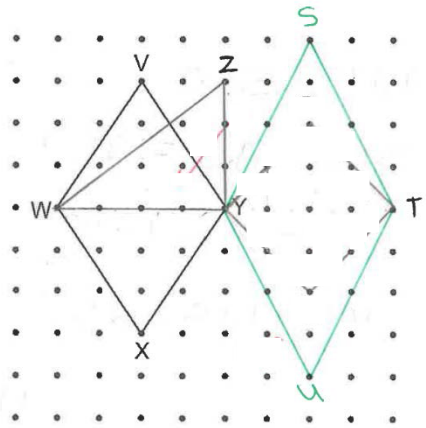
Q20

Figure X and Y

Q21

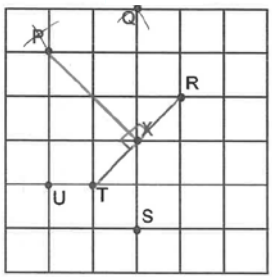
8w - $\frac{2w}{3} + 5 = (8x3) - \frac{6}{3} + 5$
$= 24 - \frac{6}{3} + 5$
$= 24 - \frac{2}{1} + 5$
= 24 – 2 + 5
= 27

Q22	$180° - 90° = 90°$ $90° \div 2 = 45°$ $180° - 45° - 30° - 90°$ $= 90° - 75°$ $\angle JKL = 15°$
Q23	a) $1\frac{3}{25} = 1\frac{12}{100}$ $= 1 + 0.12$ $= 1.12$ b) $20.85 = 20.9$
Q24	$8u - 5u = 3u$ $3u = 3.7 - 1.6$ $= 2.1$ $1u = 2.1 \div 3$ $= 0.7$ $5u = 0.7 \times 5$ $= \underline{\mathbf{3.5m}}$
Q25	a)  b) 2
Q26	$\frac{1}{2} x\ 9\ x\ 12 = 54$ $9 \div 3 = 3$ $3 \times 2 = 6$ $12 \times \frac{1}{2}\ x\ 6 = 36$ $54 - 36 = 18$ $12 \times 9 = 108$ $108 \div 2 = 54$ $54 - 36 = 18$ $18 + 18 = 36\ cm^2$
Q27	Total Distance = $80 \times 5 = 400$ $5 + 3 = 8$ $400 \div 8 = 50m/min$
Q28	$120 \times 3 = 360$ $360 - 110 = 250$ $250 \div 2 = 125$ $124 + 126 = 250$ Ans: 124 , 126

Q29	2 + 0 + 1 + 1 + 0 + 3 = 7 32 ÷ 7 = 4R4 4 x 2 = 8 8 + 2 = 10
Q30	

SCHOOL : RAFFLES GIRLS' PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATHS
TERM : MGS P6 PRELIM

Paper 2

Q1	a) 52 + 24 = 76 b) 300 – 72 – 52 -36 – 24 – 60 = 56
Q2	58h – 50h = 8h 12 x 8 = 96 646 – 96 = 550 550 ÷ 50 = 11
Q3	$1 - \frac{1}{10} = \frac{9}{10}$ $\frac{9}{10} \div 4 = \frac{9}{40}$ $\frac{9}{40} x\ 3 = \frac{27}{40}$
Q4	  a) Point R and T b) Point P
Q5	a) B and F b) A and B
Q6	a) Jared = 5y Sister = 10y Brother = 10y + 8 b) 5y – 2 10y – 2 10y + 8 – 2 = 10y + 6 5y – 2 + 10y – 2 + 10 + 6 = 25y + 6 – 2 - 2 = **25y + 2**

Q7

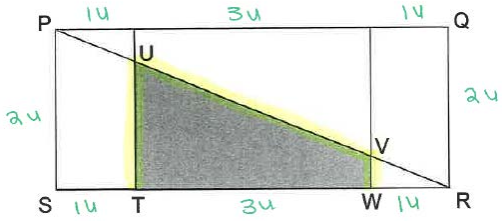
420 + 50 = 470
470 ÷ 2 = 235
235 – 40 = 195
195 ÷ 2 = 97.5g

Q8

a) $\frac{180-56}{2} = 62$
180° – 62° = 118°

b) DHBG **is** a parallelogram because DH **is not** parallel to GB

Q9



Unshaded = 11u
Shaded = 3u + 56
11u – 3u = 56
8u = 56
1u = 56 ÷ 8
= 7
$\frac{1}{2}\ x\ 21\ x\ 14 = 147\ cm^2$

Q10

	Blueberry	:	Chocolate
At First	12	:	18
Given Away	3	:	8
Left	9	:	10

10u – 9u = 1u
1u = 12
12u + 18u = 30u
30u = 12 x 30
= 360

Q11

a) 3 muffins = 4 doughnuts
48 muffins = 64 doughnuts
1.96 kg = 1960g
1960 – 640 = 1320
108 – 64 = 44
1320 ÷ 44 = 30g

b) 1960 + 640 = 2600
2600 ÷ 30 = 86R20 Ans: 86

Q12	a) $\angle KLM = 360° - 305° = 55°$ $\angle NML = 180° - 55° = 125°$ b) $\angle LKM = 180° - 90° - 55° = 35°$ $\angle NKL = 180° - 100° = 80°$ $\angle NKM = 180° - 100° - 35° = 45°$ $\angle JMN = 180° - 19° - 45° - 35° - 68° = 13°$
Q13	a) 60 x 4 = 240 b) $\frac{36}{240} = \frac{3}{20}$ $\frac{3}{20} x\ 100 = 15\ \%$ c) 240 – 60 – 60 – 36 = 84 84 ÷ 4 = 21
Q14	a) 35 + 54 + (15x3) = $134 b) (54x2) + 15 = 123 123 x 90% = $110.70 c) 99 – 54 = 45 45 ÷ 15 = 3 3 + 1 = 4
Q15	a) 9u – 2u = 7u 7u = 100 + 48 + 48 = 196 1u = 196 ÷ 7 = 28 2u + 9u = 11u 11u = 28 x 11 = 308 b) 252 – 70 = 182
Q16	a) 35 x 22 x 8 = 6160 28040 – 6160 = 21880 35 x 22 = 770 18 x 18 = 324 770 + 324 = 1094 21880 ÷ 1094 = 20cm b) 35 x 22 x 28 = 21560 35 – 20 = 15 15 x 18 x 18 = 4860 $\frac{4860}{21560} x\ 100 = 22.5\ \%$ Ans: 22.5%

17	a) 48 ÷ 3 = 16 √16 = 4cm b) 16 x 6 = 96 $\frac{1}{4}\ x\ 3.14\ x\ (4x3)x(4x3) = 113.04$ $\frac{1}{4}\ x\ 8\ x\ 8\ x\ 3.14 = 50.24$ $\frac{1}{4}\ x\ 4\ x\ 4\ x\ 3.14 = 12.56$ 50.24 – 12.56 = 37.68 113.04 – 37.68 = 75.36 75.36 + 96 = 171.36cm²