



新加坡福建会馆属下五校小六统一考试  
道南 • 爱同 • 崇福 • 南侨 • 光华

SINGAPORE HOKKIEN HUAY KUAN  
5-SCHOOL COMBINED PRIMARY 6 PRELIMINARY EXAMINATIONS  
TAO NAN • AI TONG • CHONGFU • NAN CHIAU • KONG HWA

2014  
数学 MATHEMATICS  
PAPER 1  
BOOKLET A

Date : 22 August 2014

Total Time for Booklets A and B: 50 min

INSTRUCTIONS TO CANDIDATES

- √ Do not open this booklet until you are told to do so.
- √ Follow all instructions carefully.
- √ Answer all questions.
- √ Shade your answers in the Optical Answer Sheet (OAS) provided
- √ You are not allowed to use a calculator.

This booklet consists of 8 printed pages.

School : \_\_\_\_\_  
Name : \_\_\_\_\_  
Class : \_\_\_\_\_

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). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

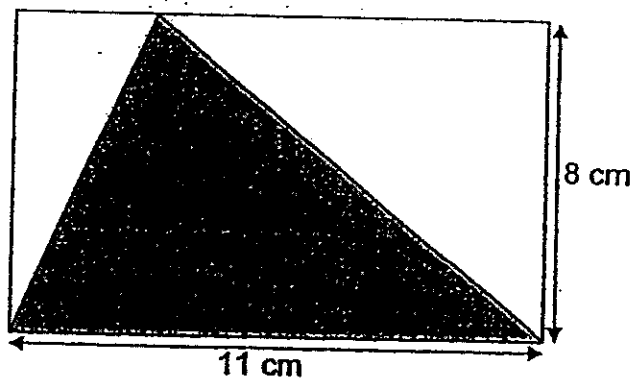
1 7 ones 9 tenths 4 thousandths written as a decimal is \_\_\_\_\_.

- (1) 7.094
- (2) 7.904
- (3) 70.094
- (4) 70.904

2 Which of the following is the smallest number that can be divided by 5 with no remainder?

- (1) 3502
- (2) 2053
- (3) 3205
- (4) 2350

3 The rectangle below has a length of 11 cm and a breadth of 8 cm. What is the area of the shaded part?



- (1)  $88 \text{ cm}^2$
- (2)  $44 \text{ cm}^2$
- (3)  $38 \text{ cm}^2$
- (4)  $22 \text{ cm}^2$

4 Express 155 minutes in hours and minutes.

- (1) 1 h 35 min
- (2) 1 h 55 min
- (3) 2 h 35 min
- (4) 2 h 55 min

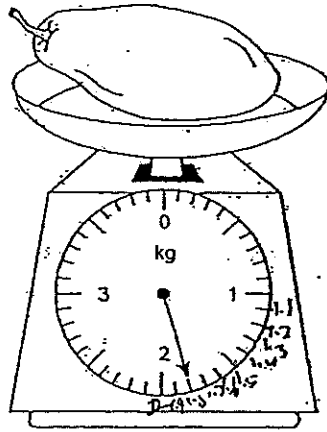
5 The table below shows the charges for bicycle rental.

BICYCLE FOR RENTAL	
For the first hour	\$4.00
For every additional $\frac{1}{2}$ hour	\$1.50

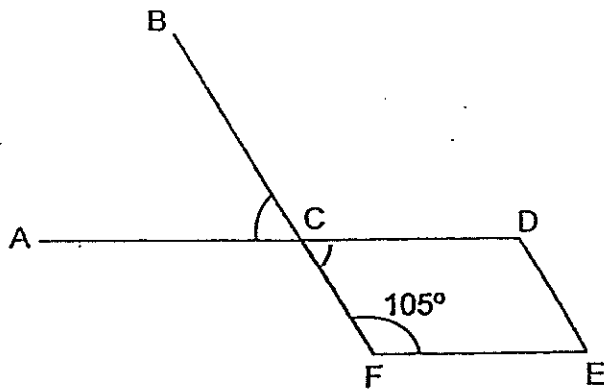
Joshua rented a bicycle from 9.30 a.m. to 12 noon.  
How much did he pay?

- (1) \$5.50
- (2) \$7.00
- (3) \$8.50
- (4) \$10.00

- 6 The diagram below shows a papaya on a weighing scale. What is the mass of the papaya?

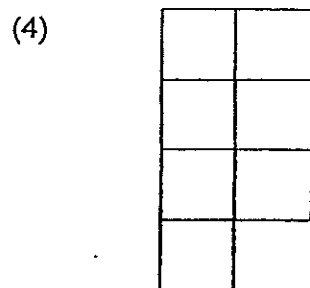
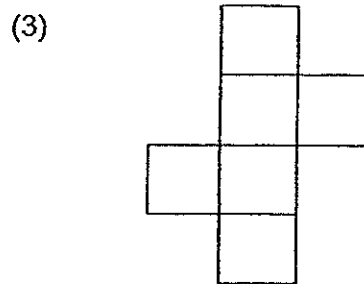
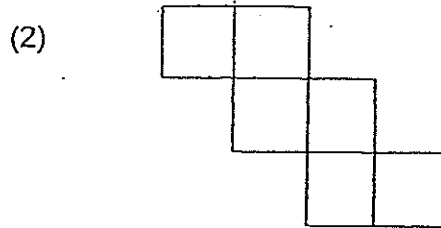
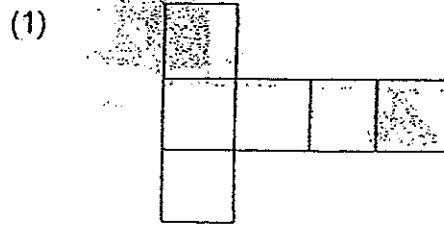


- (1) 2 kg 200 g  
(2) 1 kg 800 g  
(3) 1 kg 80 g  
(4) 1 kg 8 g
- 7 In the figure shown below, ACD and BCF are straight lines, CDEF is a parallelogram and  $\angle CFE = 105^\circ$ . Find  $\angle BCA$ .

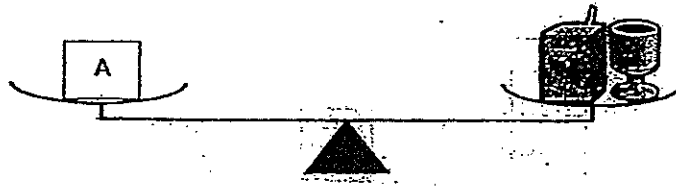


- (1)  $15^\circ$   
(2)  $25^\circ$   
(3)  $75^\circ$   
(4)  $85^\circ$

8 Which of the following is not a net of a cube?



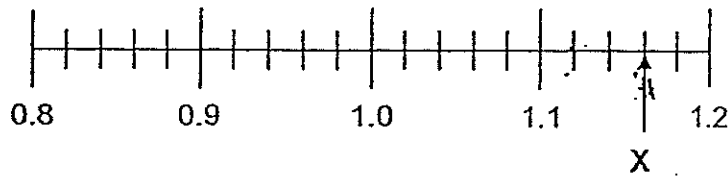
- 9 The figure below shows three objects on a balance.



Object A has a mass of 540 g.  
What is the average mass of the three objects?

- (1) 180 g
- (2) 270 g
- (3) 360 g
- (4) 810 g

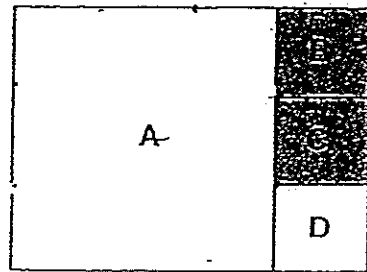
10



What is the value of X?

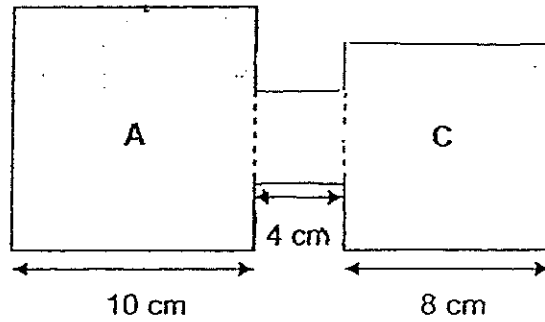
- (1) 1.18
- (2) 1.16
- (3) 1.14
- (4) 1.13

- 11 The figure below is made up of 4 squares A, B, C and D.  
What fraction of the figure is unshaded?

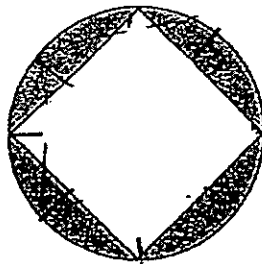


- (1)  $\frac{1}{6}$
- (2)  $\frac{2}{3}$
- (3)  $\frac{7}{9}$
- (4)  $\frac{5}{6}$
- 12 Corine had 40 bracelets. She gave 12 bracelets to Judy and  $w$  bracelets to each of her 2 friends. How many bracelets had she left?
- (1)  $28 - 2w$
- (2)  $28 + 2w$
- (3)  $28 - w$
- (4)  $28 + w$

- 13 The figure below is made up of 3 different squares, A, B and C. What is the perimeter of the figure?



- (1) 62 cm  
 (2) 72 cm  
 (3) 80 cm  
 (4) 88 cm
- 14 In the figure below, a square lies within a circle. Given that the square has an area of  $98 \text{ cm}^2$ , find the total area of the shaded parts. (Take  $\pi = \frac{22}{7}$ )



- (1)  $24.5 \text{ cm}^2$   
 (2)  $38.5 \text{ cm}^2$   
 (3)  $49.0 \text{ cm}^2$   
 (4)  $56.0 \text{ cm}^2$



- 15 In the hall,  $\frac{3}{8}$  of the students are girls.  $\frac{2}{3}$  of the girls wear spectacles. There are 24 girls who wear spectacles. How many students are there in the hall?

- (1) 96
- (2) 64
- (3) 48
- (4) 36



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2014  
数学 MATHEMATICS  
PAPER 1  
BOOKLET B

Date : 22 August 2014  
Total Time for Booklets A and B: 50 min

INSTRUCTIONS TO CANDIDATES

- √ Do not open this booklet until you are told to do so.
- √ Follow all instructions carefully.
- √ Answer all questions.
- √ You are not allowed to use a calculator.

This booklet consists of 7 printed pages.

School : \_\_\_\_\_  
Name : \_\_\_\_\_  
Class : \_\_\_\_\_

TOTAL	20
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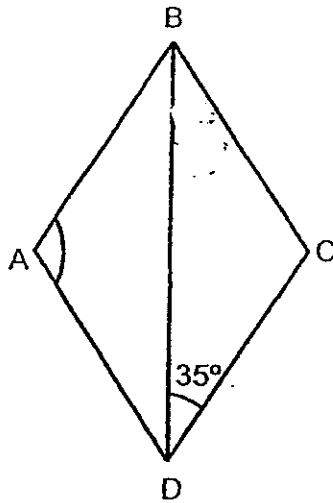
Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

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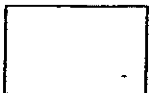
16 Find the value of  $5 \div 8$ . Express your answer as a decimal.

Ans: \_\_\_\_\_

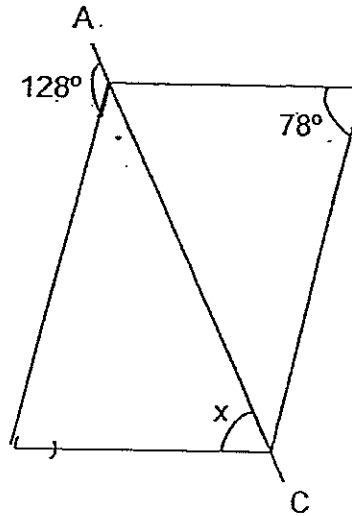
17 ABCD is a rhombus and  $\angle BDC = 35^\circ$ . BD is a straight line. Find  $\angle BAD$ .



Ans: \_\_\_\_\_ °



- 18 The figure below shows a parallelogram.  
AC is a straight line. Find  $\angle x$ .



Ans: \_\_\_\_\_<sup>o</sup>

- 19 Ali has  $k$  stamps and Devi has  $4k$  stamps. James has 16 stamps less than Devi. How many stamps do they have altogether?

Ans: \_\_\_\_\_

- 20 Find the value of  $7 + 10p + 4 - 2p$  when  $p = 2$ .

Ans: \_\_\_\_\_

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this space



21. There were 40 oranges and 120 apples in a basket.  
What percentage of the fruits in the basket were oranges?

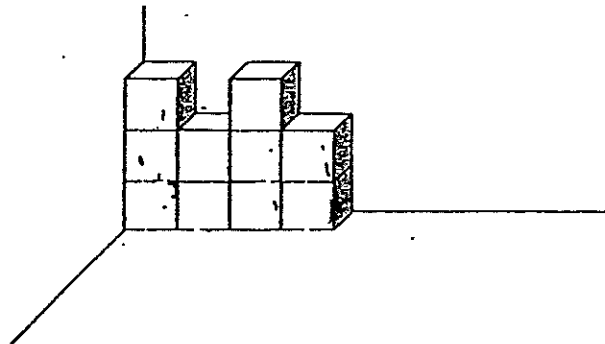
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this space

Ans: \_\_\_\_\_ %

22. There were 5 times as many red beans as green beans and 3 times as many yellow beans as red beans in a jar. What was the ratio of the number of green beans to the total number of beans in the jar?

Ans: \_\_\_\_\_

23. The solid shown below is made up of some identical 2-cm cubes.  
What is its volume?

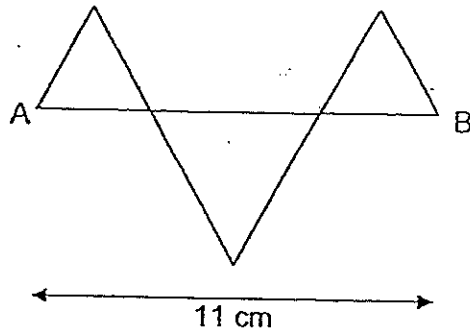


Ans: \_\_\_\_\_  $\text{cm}^3$



- 24 A wire is used to form three equilateral triangles as shown in the figure below. The length of AB is 11 cm. What is the total length of wire used?

Do not write in this space



Ans: \_\_\_\_\_ cm

- 25 An oven takes 10 minutes to bake 8 cupcakes at a time. How long does it take to bake 24 cupcakes?

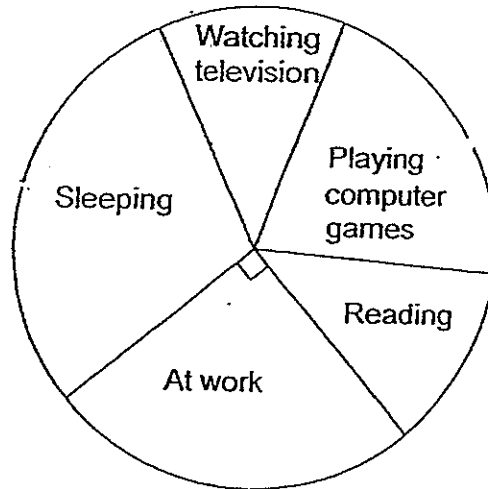
Ans: \_\_\_\_\_ min



Questions 26 to 30 carry 2 marks each. Show your working clearly in the space provided for each question 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

26 The pie chart below shows how James spends his time in a day.



He spends half his day sleeping and playing computer games. He spends 3 hours watching television. What percentage of the day does he spend on reading?

Ans: \_\_\_\_\_ %

- 27 The table below shows the number of students taking part in different games for a school event. Each student was allowed to take part in only one game.

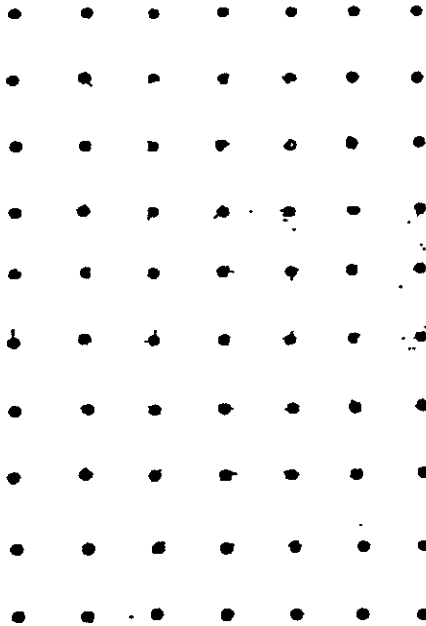
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Games	No. of boys	No. of girls
Badminton	12	16
Table tennis	18	10
Basketball	20	14

Which game did 35% of the girls play?

Ans: \_\_\_\_\_

- 28 Draw three more unit shapes to extend the tessellation.





**Buffet Dinner Promotion**

\$30 per person  
For every 3 persons who pay, the  
4<sup>th</sup> person dines for free!

A group of people went for the buffet dinner. The bill for the dinner was \$300. How many people were there in the group?

Ans: \_\_\_\_\_

- 30 The ratio of the number of Leon's marbles to the number of Jay's marbles was 3 : 5. In a game with their friends, Leon won 15 marbles while Jay lost 3 marbles. They both then had the same number of marbles. How many marbles did both boys have altogether before the game?

Ans: \_\_\_\_\_

END OF PAPER 1



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2014  
数学 MATHEMATICS  
PAPER 2

Date : 22 August 2014

Total Time for Paper 2: 1 h 40 min

INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so.

√ Follow all instructions carefully.

√ Answer all questions.

√ Show your working clearly as marks are awarded for correct answers

√ You are allowed to use a calculator.

This booklet consists of 15 printed pages.

School : \_\_\_\_\_

Name : \_\_\_\_\_

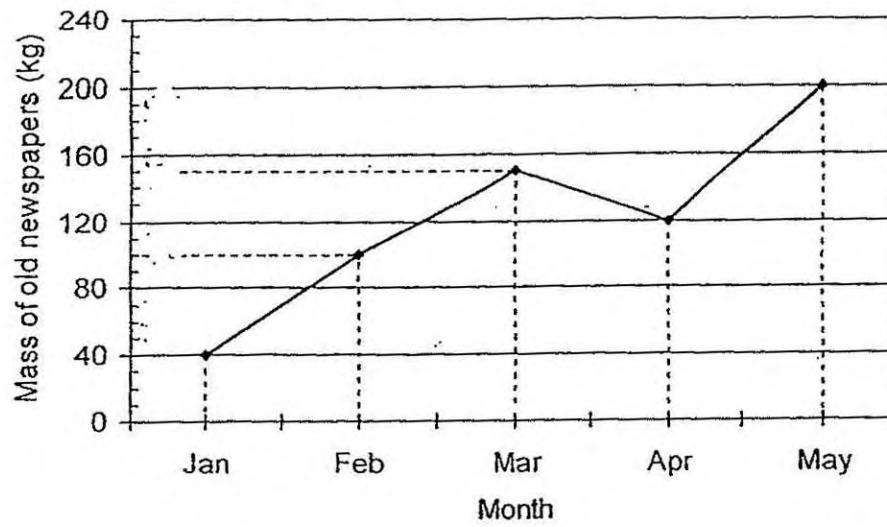
Class : \_\_\_\_\_

Booklet A	
Booklet B	
Paper 2	
Total Marks	

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question 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 The graph below shows the mass of old newspapers collected over 5 months. In which 1-month period was there a 50% increase in the mass of the old newspapers collected?



Ans: Between \_\_\_\_\_ and \_\_\_\_\_

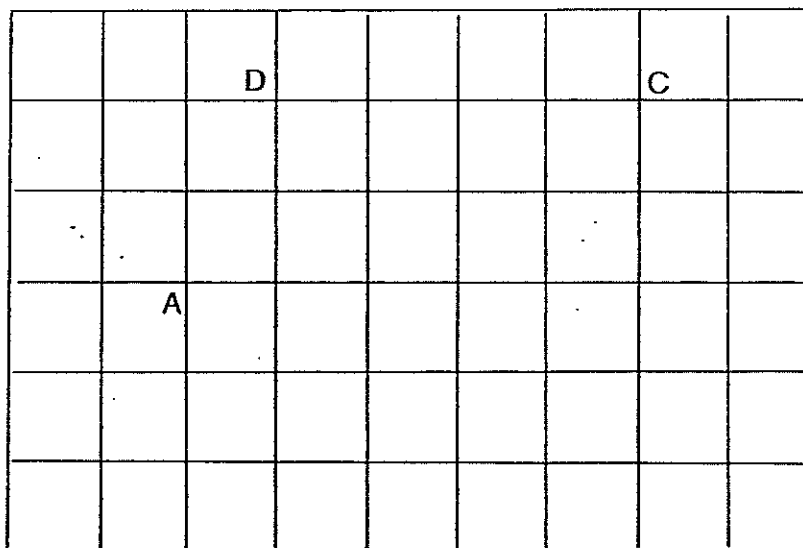


- 2 Lili and Mimi have 480 beads altogether. Lili has 72 more beads than Mimi. How many beads does Mimi have?

Do not write  
in this space

Ans: \_\_\_\_\_

- 3 The diagram below shows part of a parallelogram, ABCD. AD and DC are two sides of the parallelogram. Complete the diagram by drawing the other two sides of the parallelogram ABCD. Label your diagram clearly.

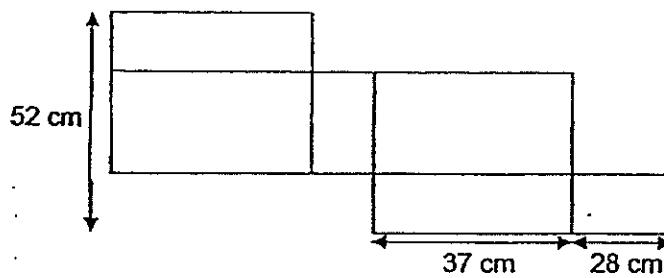


- 4 Tom has a plank of wood that is  $\frac{2}{3}$  m long.  
 He wants to cut it into pieces of  $\frac{1}{12}$  m each.  
 What is the minimum number of cuts he needs to make?

Do not write  
 in this space

Ans: \_\_\_\_\_

- 5 The figure below shows the net of a cuboid.  
 Find the volume of the cuboid.



Ans: \_\_\_\_\_ cm<sup>3</sup>



For questions 6 to 18, show your working clearly in the space below each question and write your answers in the spaces provided.  
The number of marks available is shown in the brackets [ ] at the end of each question or part-question. (50 marks)

Do not write  
in this space



- 6 1 bottle of shampoo and 1 bottle of bath foam cost \$31 altogether. Germaine bought 3 bottles of shampoo and 5 bottles of bath foam for \$119.40. How much did one bottle of bath foam cost?

Ans : \_\_\_\_\_ [3]

- 7 In a canteen, tables can be arranged in exactly 11 tables per row. If the same number of tables is arranged in rows of 8 tables each, there will be 6 more rows and 3 tables left over. How many tables are there?

Ans : \_\_\_\_\_ [3]

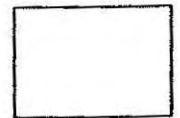
- 8 The table below shows the English marks of three boys. Tom's and Peter's marks have been accidentally covered by two ink drops.

	Marks
Tom	6 
Peter	8 
David	?

The average marks of the three boys is 79. The difference between Tom's marks and Peter's marks has the smallest possible value. What is David's marks?  
(The boys' marks are in whole numbers.)

Do not write  
in this space

Ans : \_\_\_\_\_ [3]



- 9 The ratio of the number of chocolate muffins to strawberry muffins is 4 : 5. The ratio of the number of vanilla muffins to the total number of chocolate and strawberry muffins is 5 : 6. What fraction of the muffins are strawberry muffins?

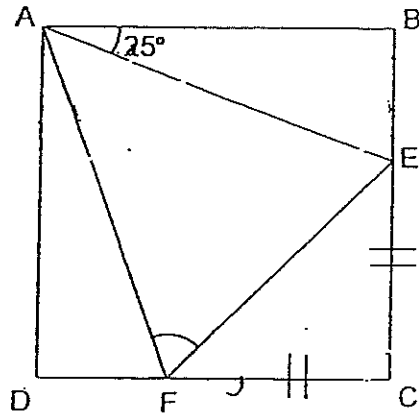
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in this space

Ans : \_\_\_\_\_ [3]





- 10 In the figure below,  $ABCD$  is a square.  $AEF$  and  $CEF$  are isosceles triangles and  $\angle BAE = 25^\circ$ . Find  $\angle AFE$ .



Do not write  
in this space

Ans : \_\_\_\_\_ [3]



- 11 At 10.30 a.m., Alvin left Town A for Town B, driving at a speed of 75 km/h. At 11.30 a.m., Tim also left Town A for Town B driving at a certain speed. Both of them did not change their speed throughout the journey. At 2.30 p.m., both of them passed a shopping mall that was 150 km away from Town B. How many minutes earlier did Tim reach Town B than Alvin?

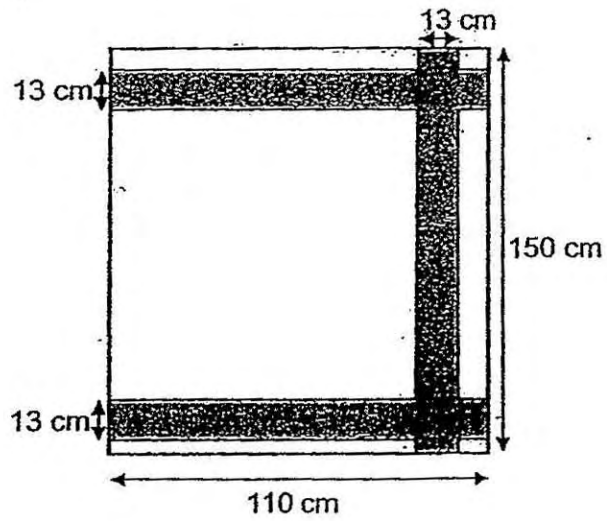
Do not write  
in this space

Ans : \_\_\_\_\_ [4]



- 12 The figure below shows a rectangular cardboard with 3 rectangular stickers pasted on it. The stickers have a width of 13 cm each. Find the area of the region that is not covered by the stickers.

Do not write  
in this space

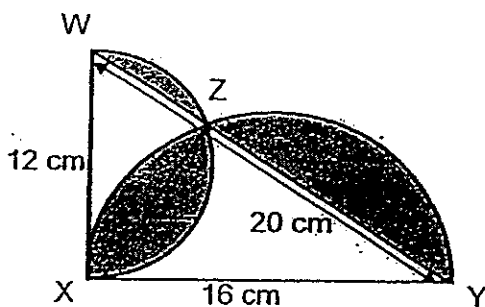


Ans : \_\_\_\_\_ [3]



- 13 The figure below is made up of a right-angled triangle  $WXY$  and two semicircles with  $XY$  and  $WX$  as their diameters respectively. The two semicircles and the line  $WY$  meet at  $Z$  as shown.  $WX = 12$  cm,  $XY = 16$  cm and  $WY = 20$  cm. (Take  $\pi = 3.14$ )
- (a) Find the perimeter of the shaded region.
- (b) Find the area of the shaded region.

Do not write  
in this space



Ans : (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [3]



- 14 John used black and white tiles to create the patterns below.

Pattern No.	No. of Black tiles	No. of White tiles	Total no. of tiles
1	6	2	8
2	8	3	11
3	10	4	14
4	12	5	17
5	14	6	20

Use the patterns that he has created to answer the following questions.

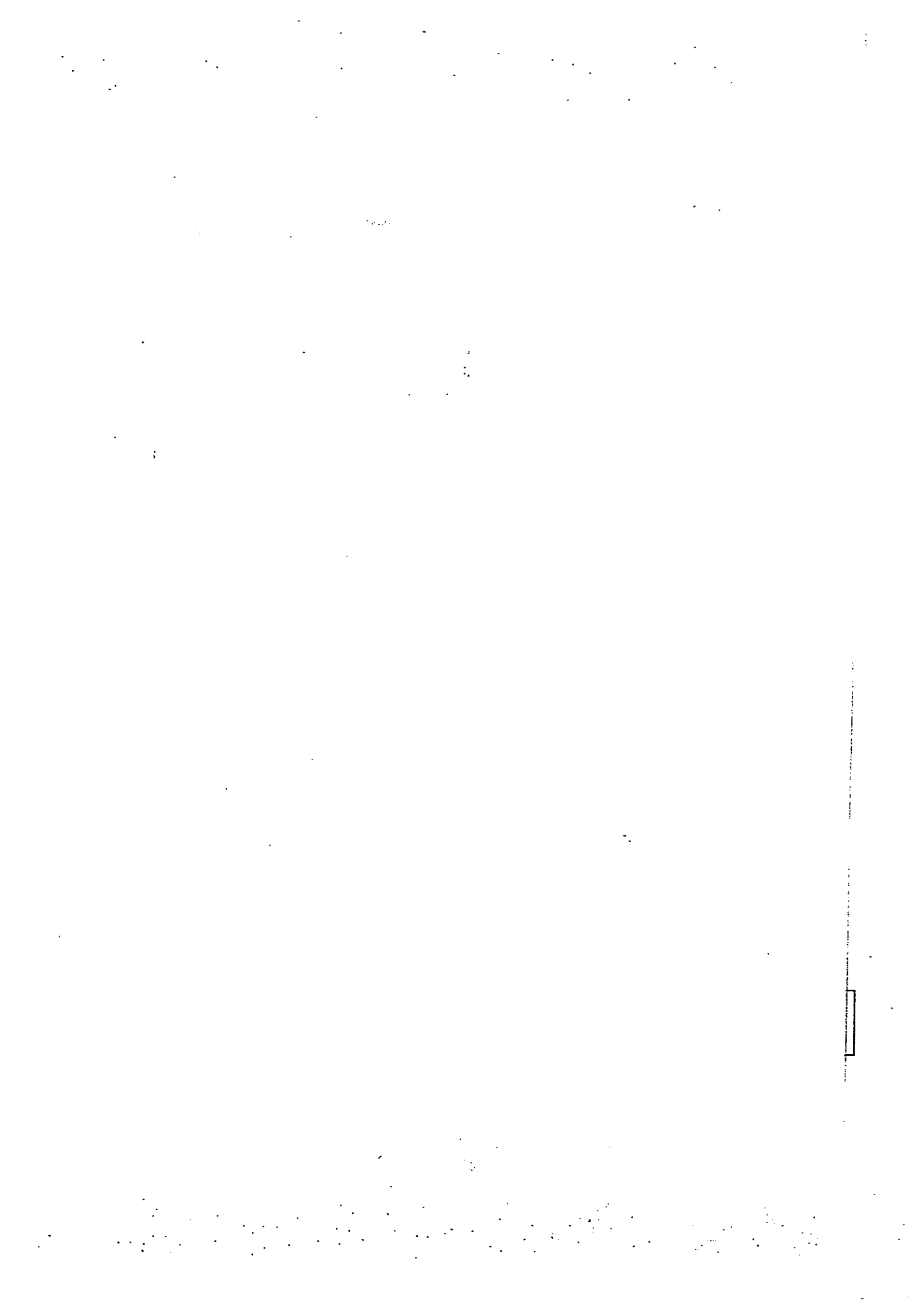
- (a) How many tiles will there be in Pattern 15?  
(b) Which pattern will be made up of 176 tiles?

Do not write  
in this space

Ans : (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]





EXAM PAPERS 2014

SCHOOL: SHHK COMBINED SCHOOL  
SUBJECT: MATHEMATICS  
LEVEL: PRIMARY 6  
TERM: PRELIMINARY EXAM

PAPER 1 BOOKLET A

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

BOOKLET B

Q16 0.625  
Q17 110  
Q18 50  
Q19 (9K-16)  
Q20 27  
Q21 25  
Q22 1:21  
Q23 80  
Q24 33  
Q25 30  
Q26 12.5  
Q27 Basketball  
Q28

Q29 13  
Q30 72

Feb and March  
480-72/ 2= 204

PAPER 2

Q1

Q2

Q3

Q4 8/12

$$8-1=7$$

Ans: 7

Q5  $52-28/2=12\text{cm}$

$$12 \times 28 \times 37 = 12432\text{cm}^3$$

Ans:  $12432\text{cm}^3$

Q6  $\$31 \times 3 = \$93$

$$\$119.40 - \$93 = \$26.40$$

$$\$26 \div 40 \div 2 = \$13.20$$

Ans:  $\$13.20$

Q7  $11-8=3$

$$8 \times 6 = 48$$

$$48 \div 3 \div 3 = 17$$

$$17 \times 11 = 187$$

Ans: 187

Q8  $79 \times 3 = 237$

$$80 - 69 = 11$$

$$237 - 80 - 69 = 88$$

Ans: 88

Q9 C : S    V : C+S

$$4 : 5 \quad 5 : 6$$

$$X6 \quad X6 \quad X9 \quad X9$$

$$24 : 30 \quad 45 : 54$$

$$30/99 = 10/33$$

Ans:  $10/33$

Q10  $180^\circ - 25^\circ - 90^\circ = 65^\circ$

$$180^\circ - 90^\circ / 2 = 45^\circ$$

$$180^\circ - 65^\circ - 45^\circ = 70^\circ$$

Ans:  $70^\circ$

Q11 Alvin  $\rightarrow$  4.30pm

$$6\text{hr} \times 75\text{km} = 450\text{km}$$

$$450\text{km} - 150\text{km} = 300\text{km}$$

$$300\text{km} \div 3\text{hr} = 100\text{km/h}$$

$$150\text{km} \div 100\text{km/h} = 1\text{hour}30\text{min}$$

$$2\text{hour} - 1\text{hour}30\text{min} = 30\text{min}$$



Ans: 30min

Q12  $150\text{cm} \times 110\text{cm} = 16500\text{cm}^2$   
 $13\text{cm} \times 110\text{cm} \times 2 = 2860\text{cm}^2$   
 $13\text{cm} \times 150\text{cm} = 1950\text{cm}^2$   
 $13\text{cm} \times 13\text{cm} \times 2 = 338\text{cm}^2$   
 $(2860 + 1950\text{cm}^2) - 338\text{cm}^2 = 4472\text{cm}^2$   
 $16500\text{cm}^2 - 4472\text{cm}^2 = 12028\text{cm}^2$

Ans:  $12028\text{cm}^2$

Q13  $\frac{1}{2} \times 3.14 \times 12\text{cm} = 18.84\text{cm}$   
 $\frac{1}{2} \times 3.14 \times 16\text{cm} = 25.12\text{cm}$   
 $T \rightarrow 43.96\text{cm}$   
 $43.96\text{cm} + 20\text{cm} = 63.96\text{cm}$   
 $\frac{1}{2} \times 16\text{cm} \times 12\text{cm} = 96\text{cm}^2$   
 $\frac{1}{2} \times 3.14 \times 6\text{cm} \times 6\text{cm} = 56.52\text{cm}^2$   
 $\frac{1}{2} \times 3.14 \times 8\text{cm} \times 8\text{cm} = 100.48\text{cm}^2$   
 $100.48 + 56.52 = 157\text{cm}^2$   
 $157 - 96 = 61\text{cm}^2$

Ans: (a) 63.96cm

(b)  $61\text{cm}^2$

Q14  $15 - 1 = 14$   
 $14 \times 3 = 42$   
 $42 + 8 = 50$   
 $(176 - 8) \div 3 = 56$   
 $56 + 1 = 57$

Ans: (a) 50

(b) 57

Q15  $180^\circ - 106^\circ = 74^\circ$   
 $180^\circ - 106^\circ - 44^\circ = 30^\circ$   
 $180^\circ - 30^\circ = 150^\circ$   
 $150^\circ + 74^\circ = 224^\circ$

Ans:  $224^\circ$

Q16 B : A  
 $3.1\ell$   $2.6\ell$   
 $3.1 \times 5 = 15.5\ell$   
 $66.8 - 15.5 = 51.3\ell$   
 $51.3 \div (92.6 + 3.1) = 9\text{min}$   
 $9\text{min} + 5\text{min} = 14\text{min}$   
 $14 \times 3.1\ell = 43.4\ell$

Ans: 43.4ℓ

Q17  $4 \times 4 = 16$   
 $16 + 14 = 30$   
 $10u \rightarrow 30\text{sp}$   
 $x3 \quad x3$   
 $30u \rightarrow 90\text{sp}$

3u→6bp  
x10 x10  
30u→60bp  
60bp×6=360  
360:30=12  
12+6=18

Ans: (a) 1/14

(b) 18

Q18

	B:R	T
Jane→	210:390	600
Before Dinah→	180:220	400
B→	210+180=390(25%+50%)	
R→	390+220=610(75%+50%)	
	610-390=220	
	50%J→220	
	25%J→110	
	390-110=280	

	B:R	T
Jane→	110:330	440
After Dinah→	200:280	480
	210-110=100	

Ans:(a) 440

(b) 100