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 EXAMINATION
TAO NAN • AI TONG • CHONGFU • NAN CHIAU • KONG HWA

2016

数学 MATHEMATICS
PAPER 1
BOOKLET A

Date: 2 August 2016
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.
√ The use of calculators is NOT allowed.

This booklet consists of 7 printed pages.

School : _____

Name : _____

Class : _____

TOTAL		/ 20

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 Round off 239 099 to the nearest hundred.

(1) 239 000

(2) 239 100

(3) 239 900

(4) 240 000

2 Which digit in 57.92 is in the tens place?

(1) 5

(2) 2

(3) 7

(4) 9

3 Which one of the following **does not** have a value of $5k$?

(1) $5k \div 1$

(2) $2k + 3k$

(3) $5 \times k$

(4) $5 + k$

4 How many centimetres are there in 20.3 metres?

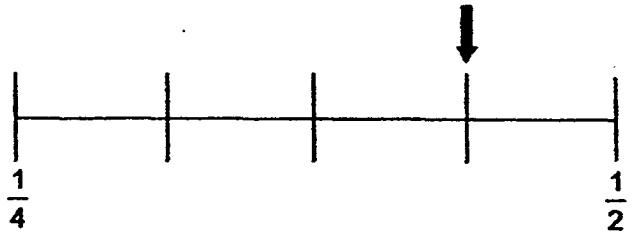
(1) 2030

(2) 203

(3) 2.03

(4) 0.203

5 In the number line below, what is the fraction indicated by the arrow?



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

(2) $\frac{3}{8}$

(3) $\frac{5}{16}$

(4) $\frac{7}{16}$

6 What is the value of $144 \div 4 - 3 \times 2 + 3$?

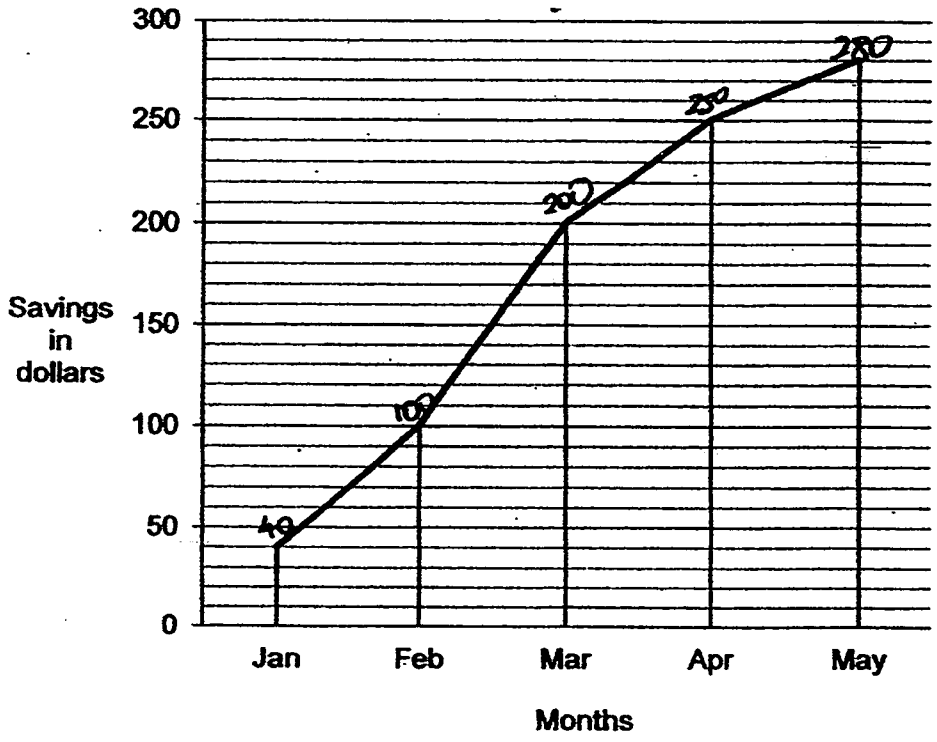
(1) 21

(2) 27

(3) 33

(4) 69

7 The graph below shows Keith's savings over a period of five months.



During which one-month period was the increase in his savings the most?

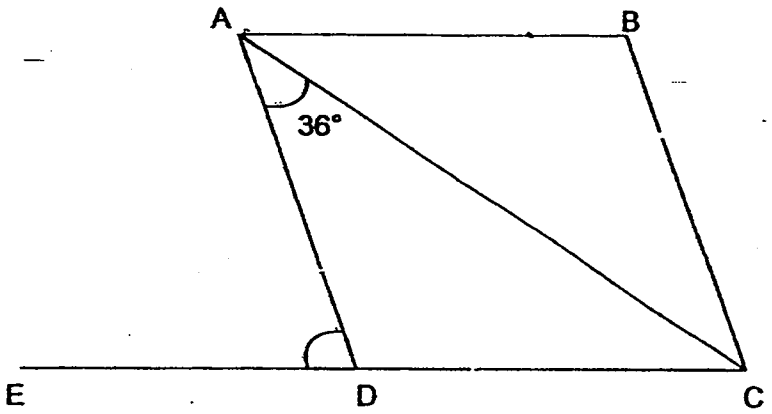
(1) Jan to Feb

(2) Feb to Mar

(3) Mar to Apr

(4) Apr to May

8 In the figure below, not drawn to scale, ABCD is a rhombus. CDE is a straight line and ∠CAD is 36°. Find ∠ADE.



(1) 36°

(2) 72°

(3) 108°

(4) 144°

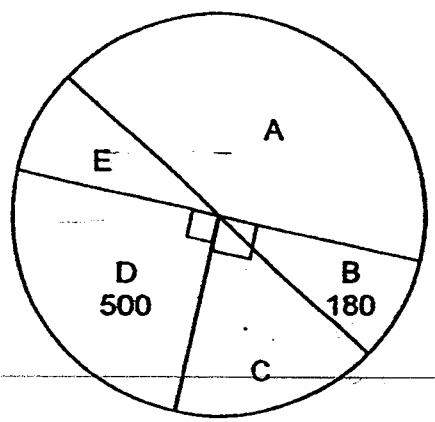
9 The pie chart below shows the brands of mobile phones (A, B, C, D and E) sold in a year. How many Brand A mobile phones were sold?

(1) 640

(2) 680

(3) 820

(4) 860



10 There are 11 oranges in Basket A. There are 3 more oranges in Basket A than in Basket B. What is the ratio of the number of oranges in Basket B to the number of oranges in Basket A?

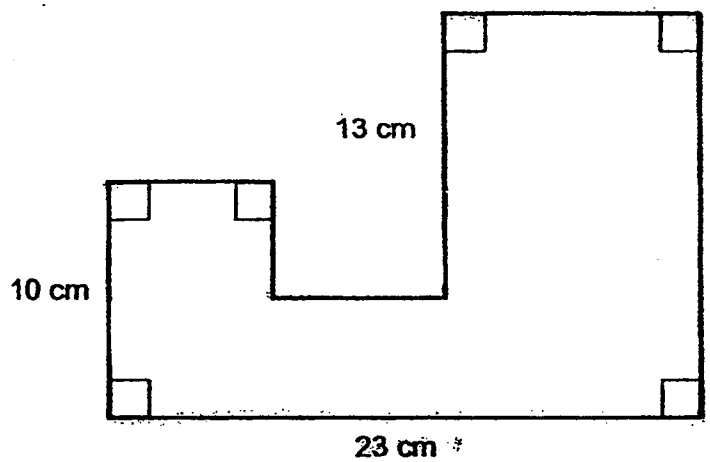
(1) 11 : 14

(2) 14 : 11

(3) 11 : 8

(4) 8 : 11

11 What is the perimeter of the figure shown below?



(1) 59 cm

(2) 66 cm

(3) 69 cm

(4) 92 cm

12 The average of two numbers is 18. The bigger number is 3 times the smaller number. Find the bigger number.

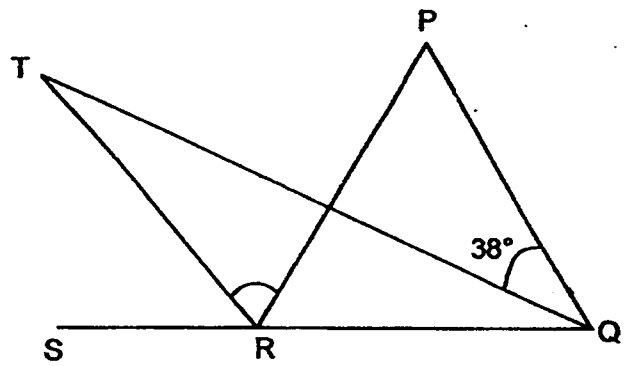
(1) 6

(2) 12

(3) 27

(4) 54

13 In the figure, not drawn to scale, PQR is an equilateral triangle. QRS is a straight line and QRT is an isosceles triangle where QR = RT.
$\angle PQT = 38°$. Find $\angle PRT$.



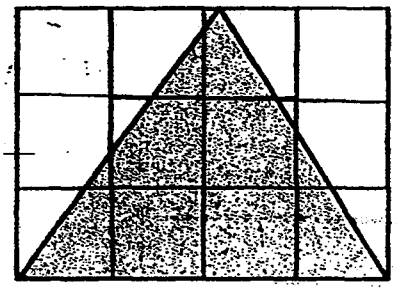
(1) 22°

(2) 76°

(3) 136°

(4) 142°

14 The figure below is made up of 6 identical rectangles of length 8 cm each. Find the area of the shaded triangle.



(1) 56 cm^2

(2) 96 cm^2

(3) 128 cm^2

(4) 192 cm^2

15 Madam Lim bought 4 kg of flour. She used $\frac{1}{4}$ of it to bake a cake and 250 g to bake a pie. How much flour had she left?

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

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

(3) $2\frac{3}{4}$ kg

(4) $3\frac{1}{2}$ kg

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数学 MATHEMATICS
PAPER 1
BOOKLET B

Date: 2 August 2016
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.
√ The use of calculators is **NOT** allowed.

This booklet consists of 8 printed pages.

School : _____

Name : _____

Class : _____

TOTAL	/ 20

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)**

Do not write in this space

16 What is the remainder when 1240 is divided by 30?

Ans: _____

17 Find the difference between 5 and 100.3.
Express your answer as a decimal.

Ans: _____

18 Kelly scored 32 out of 40 marks in a class test.
Express her score as a percentage.

Ans: _____ %

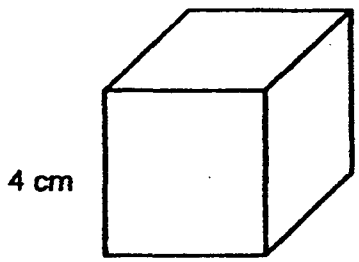
Do not write in this space

19 Mr Lee drove a distance of 15 km in 15 minutes. What was his speed in km/h?

Ans: _____ Km/h

---

20 Find the volume of the cube below.



Ans: _____ cm^3

---

21 John had \$5*p*. He bought some cookies at \$3 per kilogram and had \$*p* left. How many kilograms of cookies did he buy?

Ans: _____ kg

---

22 The price of a table tennis bat after a 30% discount is $28.
What is the usual price of the table tennis bat?

Do not write in this space

Ans: $ _____

23 What is the value of $2m \div \frac{8m}{3}$ when $m = 6$?

Ans: _____

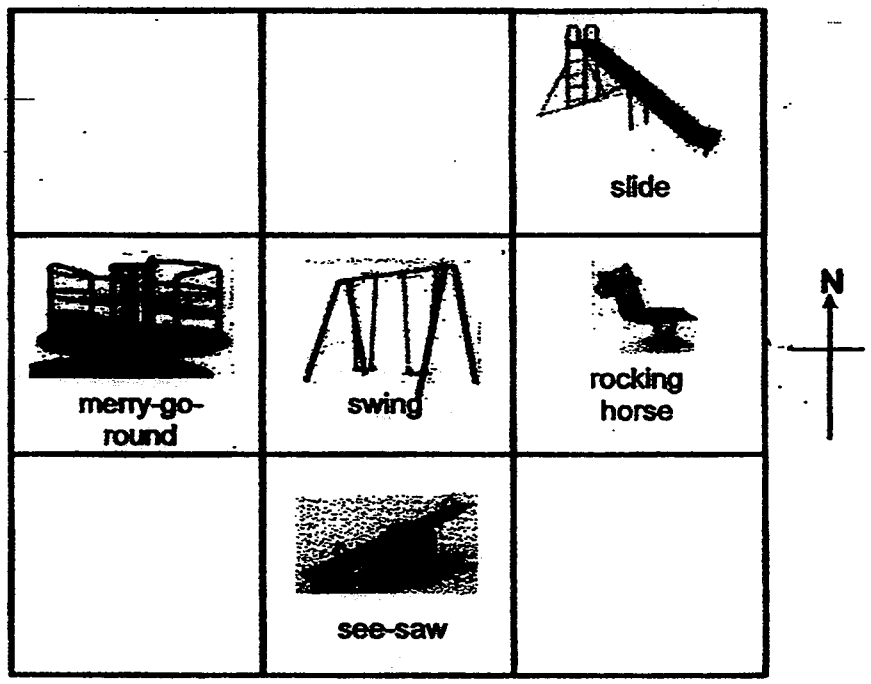
24 Use all the digits below to form the number which is closest to 7000.

8	7	6	0

Ans: _____

25 The diagram below shows the locations of play equipment at a playground.

Do not write in this space



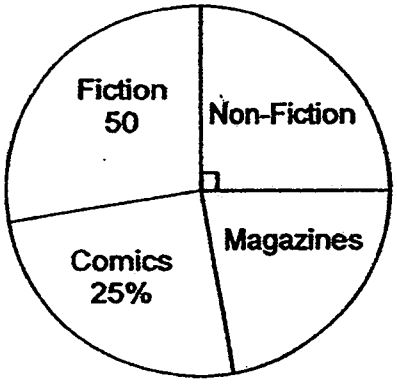
Which equipment is located to the south-west of the slide?

Ans: _____

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 the number of children who borrowed different types of books in a library.**
40 children borrowed comics.

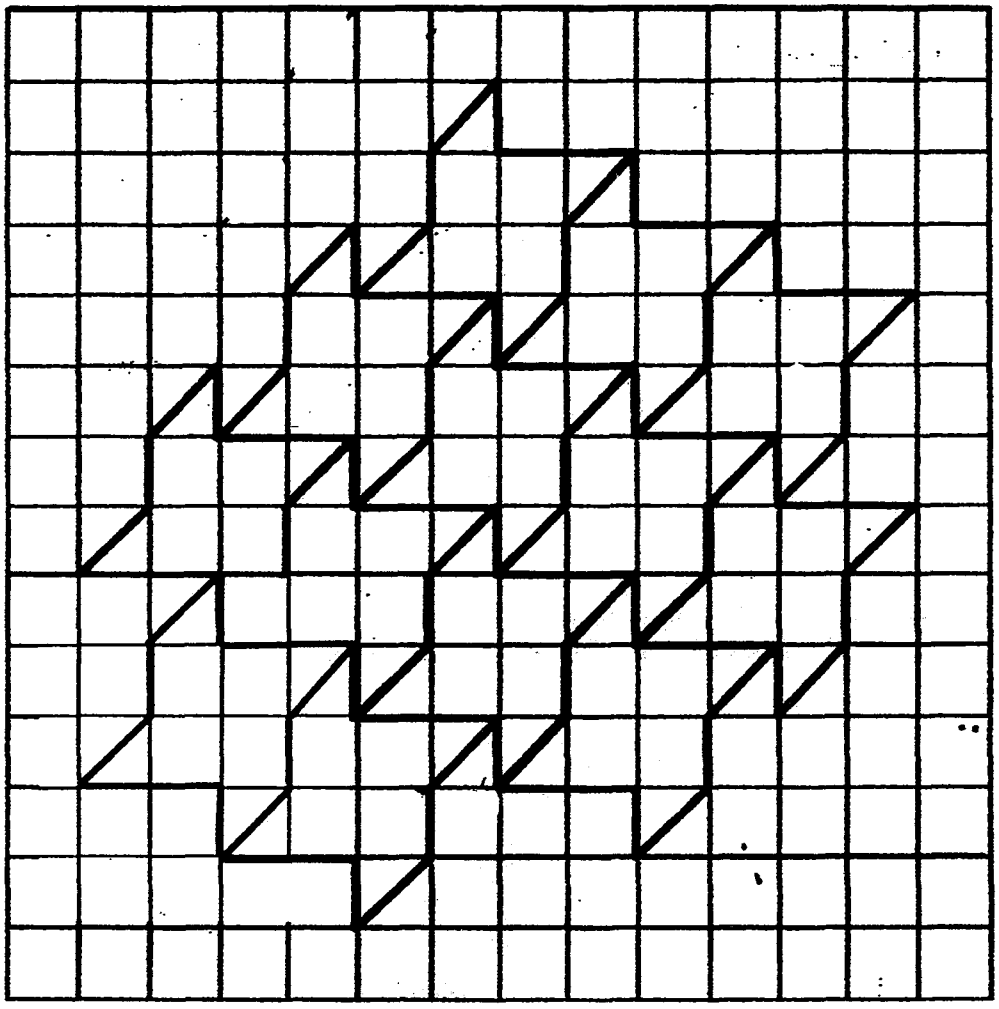


How many children borrowed magazines?

Ans: _____

27 The pattern below shows part of a tessellation.

Do not write in this space

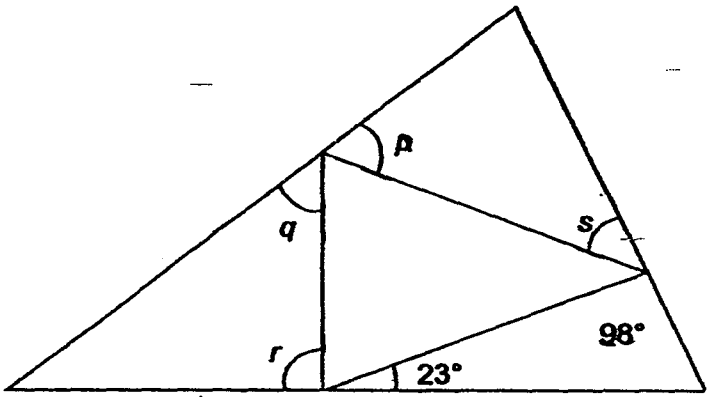


(a) Shade a unit shape of the tessellation.

(b) Extend the tessellation by drawing one more unit shape in the space provided in the box.

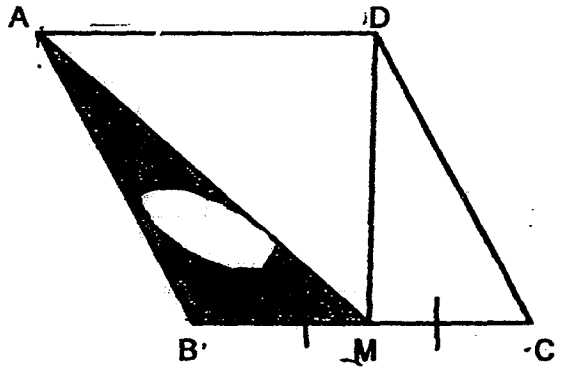
28 The figure below is made up of triangles.
Find the sum of $\angle p + \angle q + \angle r + \angle s$.

Do not write in this space



Ans: _____°

29 ABCD is a parallelogram. M is the midpoint of BC.
Triangle ABM has an area of 24 cm^2. Find the area of ABCD.



Ans: _____ cm^2

30 Ahmad's savings is $\frac{4}{5}$ of Siti's savings but $\frac{2}{5}$ of James' savings.
The difference between Siti's and James' savings is $125.
How much is Ahmad's savings?

Do not write in this space

Ans: $ _____

~~~ END OF PAPER 1 ~~~
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2016

数学 MATHEMATICS PAPER 2

Date: 2 August 2016
Total Time: 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.
√ Write your answers in this booklet
√ The use of an approved calculator is expected, where appropriate.

This booklet consists of 15 printed pages.

School : _____

Name : _____

Class : _____

TOTAL	/ 60

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.

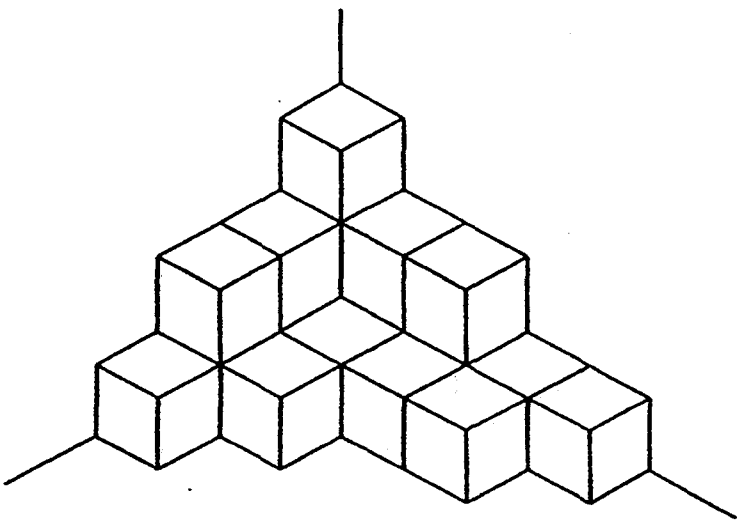
(10 marks)

Do not write in this space

1 There are 210 people in a room. 30% of them are adults. 42 children entered the room. What percentage of the people in the room now are adults?

Ans: _____ %

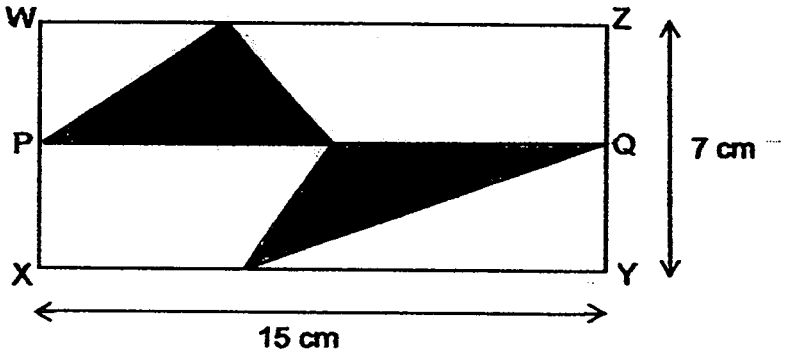
2 The solid below is made up of 2-cm cubes. Find the volume of the solid.



Ans: _____ cm^3

3 In Rectangle WXYZ, P and Q are mid-points of WX and YZ respectively. Find the shaded area of the figure.

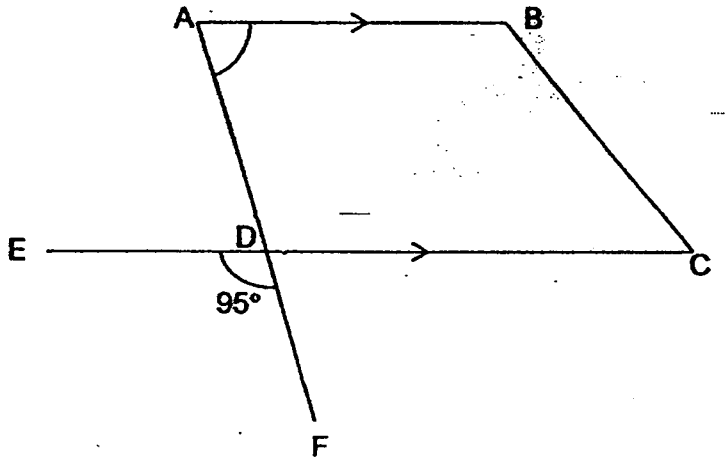
Do not write in this space



Ans: _____ cm^2

4 In the figure, ABCD is a trapezium. AF and EC are straight lines. Find ∠BAD.

Do not write in this space



Ans: _____°

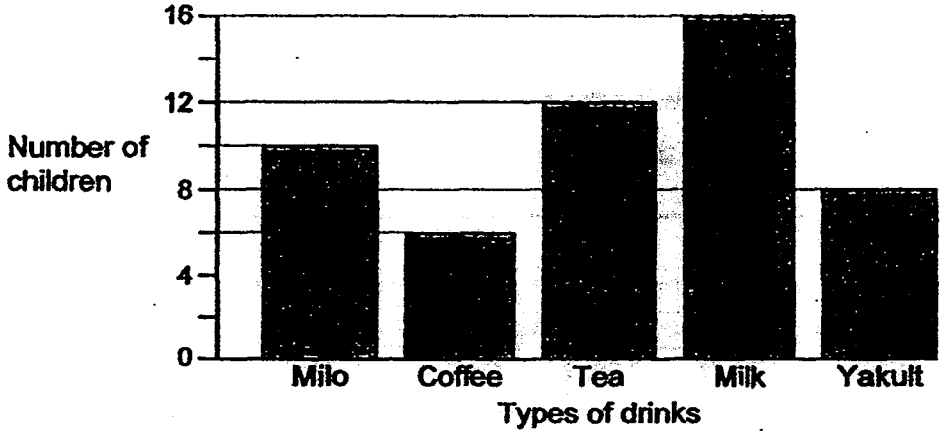
5 Madam Lim paid $963 for a handbag, including 7% GST. What was the price of the handbag before GST?

Ans: $ _____

For questions 6 to 18, 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. (50 marks)

Do not write in this space

6 The graph below shows the favourite drinks of some children.



(a) How many children like coffee?

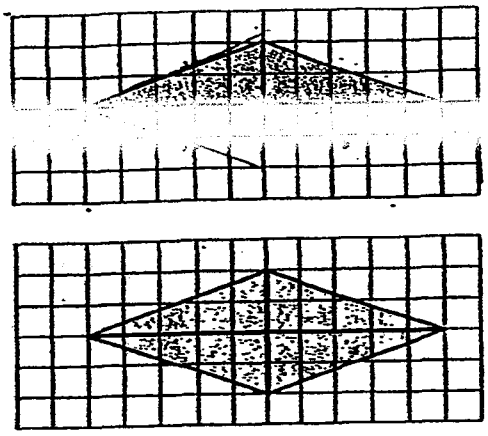
(b) The table below shows the prices of the drinks. All the children bought their favourite drink on a particular day. From the sale of which type of drinks was the most amount of money collected?

Types of drinks	Price per drink
Milo	$1.95
Coffee	$1.70
Tea	$1.70
Milk	$1.20
Yakult	$0.90

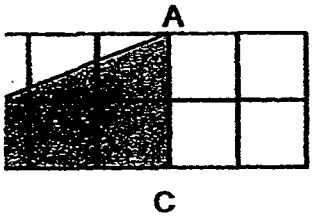
Ans : (a) _____ [1]

(b) _____ [2]

7.

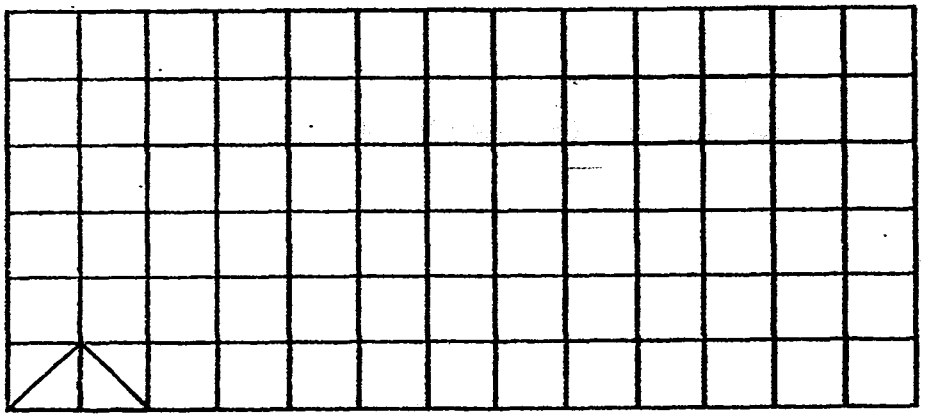


gle ABC.

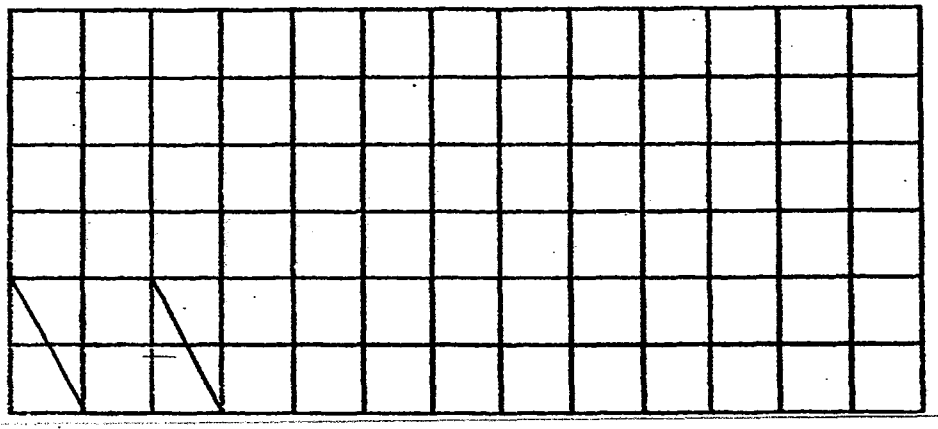


Do not write in this space

(a) Form an isosceles triangle using the **smallest** number of the unit triangles.
Present your answer in the grid below. [1]

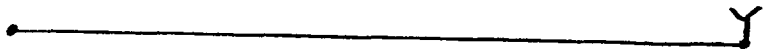


(a) Form a rhombus using the **smallest** number of unit triangles.
Present your answer in the grid below. [2]



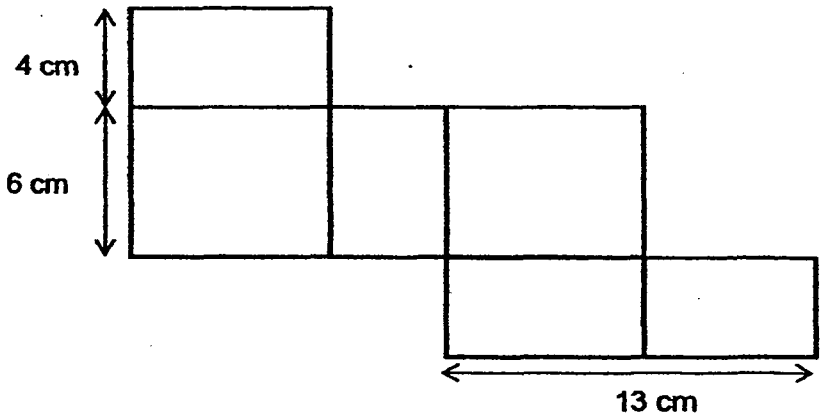
8 At 10 a.m., a car started from Town X and travelled towards Town Y at a speed of 80 km/h. At the same time, a lorry started from Town Y and travelled towards Town X along the same route at a speed of 50 km/h. The distance between Town X and Town Y is 182 km. At what time did they meet?

Do not write in this space



Ans : _____ [3]

9 The figure shows the net of a cuboid. Find the volume of the cuboid.



Ans : _____ [3]

10 Mr Chan needs 6.litres of paint. He checks the advertisements and finds the following sales :

Do not write in this space

Store	Price
A	$7 per litre
B	$9 per litre Buy 3 litres and get the 4th litre free

(a) What is the difference in price for 6 litres of paint between the two stores?

(b) Which store should he go to if he wants to get a better deal?

Ans : (a) _____ [2]

(b) _____ [1]

11 There were 180 more bags in Shop A than Shop B at first. After $\frac{1}{5}$ of the bags were transferred from Shop A to Shop B, there were 24 more bags in Shop B than Shop A. How many bags were there in Shop B at first?

Do not write in this space

Ans : _____ [4]

12 George and Alan had some money. George spent $\frac{5}{12}$ of his money and Alan spent $\frac{2}{5}$ of his money. After that, they both had the same amount of money left. George spent $35 more than Alan.
How much had each of them at first?

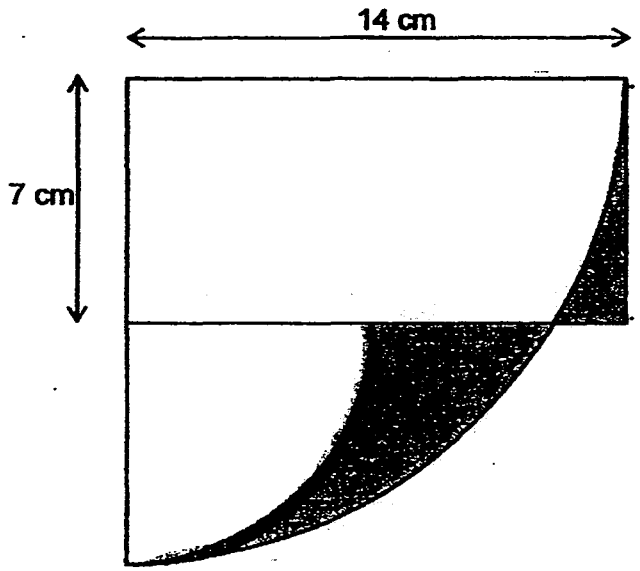
Do not write in this space

Ans : George : _____

Alan : _____

13 The figure is made up of two quarter circles and a rectangle. The radius of the larger quarter circle is the same as the length of the rectangle. Find the sum of the perimeters of the two shaded parts. (Use $\pi = \frac{22}{7}$)

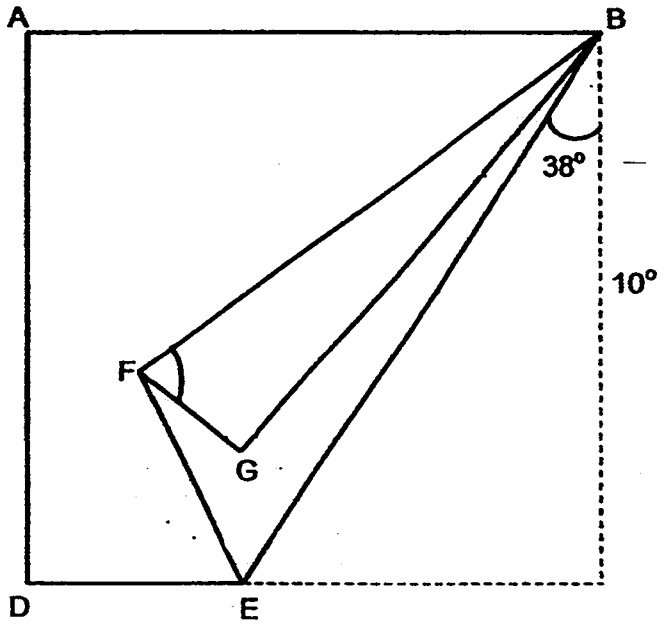
Do not write in this space



Ans : _____ [4]

14 In the figure below, a rectangular piece of paper is folded twice at its corner as shown.

Do not write in this space



(a) Find ∠BFG.

(b) Find ∠BEF.

Ans : (a) _____ [2]

(b) _____ [2]

15 70% of the participants at a mass run were adults and 25% of the remaining participants were boys. There were 2850 more adults than girls.
How many boys were there at the mass run?

Do not write in this space

Ans : _____ [4]

16 (a) A number sequence is shown below.

3, 7, 3, 7, 4, 3, 7, 3, 7, 4, 3, 7, 3, 7, 4, ...

What is the sum of the first 126 numbers?

Do not write in this space

(b) Look at the number pattern below.

Column A	Column B	Column C	Column D
	1	2	3
7	6	5	4
8	9	10	11
15	14	13	12
16	17	18	19
...	...	...	...

In which column will the number '909' appear?

Ans : (a) _____ [3]

(b) _____ [2]

17 A librarian bought $2122.40 worth of books. The ratio of the number of English books she bought to the number of Chinese books was 5 : 2. The total cost of the English books was $1125.60 more than the total cost of the Chinese books. Each English book cost $2.70 more than each Chinese book. How many books did the librarian buy?

Do not write in this space

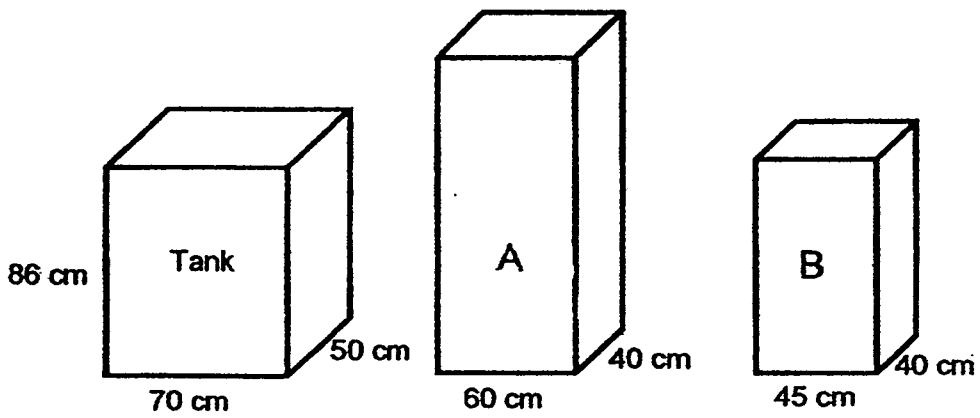
Ans : _____ [5]

18 A tank measuring 70 cm by 50 cm by 86 cm is completely filled with water. Some of the water is poured into two empty containers, A and B, such that the height of the water level in Container A is twice the height of the water level in Container B. The heights of the water levels in both Containers A and B are whole numbers.

Do not write in this space

(a) What is the highest possible water level in Container B in the end?

(b) How much water is left in the tank? Express your answer in litres.



Ans : (a) _____ [3]

(b) _____ [2]

EXAM PAPER 2016

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

PAPER 1
Booklet A

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

Booklet B

Q16 10

Q17 95.3

Q18 80%

Q19 60km/h

Q20 $64cm^3$

Q21 $\frac{4p}{3}$

Q22 $40

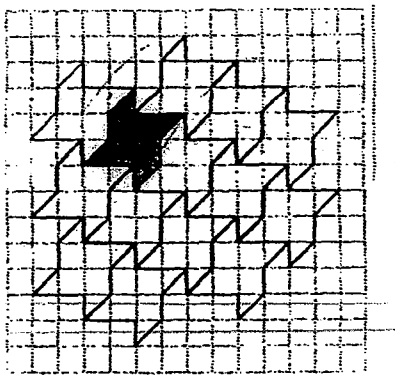
Q23 28

Q24 7068

Q25 swing

Q26 30

Q27(a)/(b)



Q28 239°

Q29 $96cm^2$

Q30 $100

PAPER 2

Q1 30% x 210 = 63
210 + 42 = 252
$\frac{63}{252}$ x 100% = 25%

Q2 2cm x 2cm x 2cm = $8cm^3$
$8cm^3$ x 18 = $144cm^3$

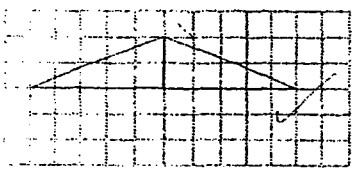
Q3 $\frac{1}{2}$ x 15cm x 3.5cm = $26.25cm^2$

Q4 ∠BAD = 180° – 95°
= 85°

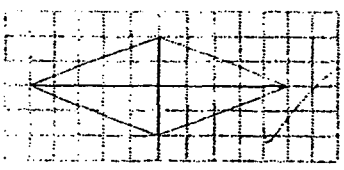
Q5 107% → $963
100% → $900

Q6 (a) 6
(b) 10 x 1.95 = 19.5 (Milo)
6 X 1.70 = 10.2 (Coffee)
12 x 1.70 = 20.4 (Tea)
16 x 1.20 = 19.2 (Milk)
8 x 0.90 = 7.2 (Yakult)
Tea was the most amount collected.

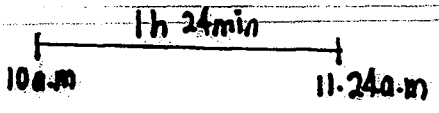
Q7 (a)



(b)



Q8 $T = \frac{DISTANCE}{TOTAL\ SPEED}$
$= \frac{182}{130}$ hrs
$= 1\frac{2}{5}$ hrs
= 1h 24 min



They met at **11.24a.m**

Q9 13cm − 6cm = 7cm

Q10 (a) A = \$7 X 6 = \$42
B = \$9 X 5 = \$45

\$45 - \$42 = **\$3** (difference) → 6*ℓ*

(b) **He should go to store A**

Q11

Shop A	Shop B
1 unit + 180 5 units + 180	1 unit 5 units
$\frac{1}{5}$ x 5 units = 1 unit $\frac{1}{5}$ x 180 = 36 5 units − 1 units = 4 units 180 − 36 = 144	5 units + 1 unit + 36 = 6 units + 36
4 units + 144	6 units + 36

4 units + 144 +24 = 6 units + 36
4 units + 168 = 6 units + 36
6 units − 4 units = 168 − 36
2 units = 132
1 unit = 66
66 x 5 = 330 (Shop B)

Q12

	George	Alan
Spent	$\frac{5}{12} = \frac{15}{36}$	$\frac{2}{5} = \frac{14}{35}$
left	$\frac{7}{12}$	$\frac{3}{5}$
Numerator Equivalent Fraction	$\frac{7}{12} = \frac{21}{36}$	$\frac{3}{5} = \frac{21}{35}$

15 units − 14 units = 1 unit
1 unit = 35
36 units = 1260 (George)
35 units = 1225 (Alan)

Q13 $(\pi \times 14) \div 4 = 3.5\pi$

$7\pi + 3.5\pi = 10.5\pi$

$= 33\text{cm}$

$33\text{cm} + 7\text{cm} + 7\text{cm} = \mathbf{47cm}$

Q14 (a) $\angle FBG = (38° - 10°) \div 2$

$= 14°$

$\angle BFG = 90° - 14°$

$= \mathbf{76°}$

(b) $\angle GFE = 180° - (76° \times 2)$

$= 28°$

$\angle BEF = 360° - 10° - 270° - 28°$

$= \mathbf{52°}$

Q15 $100\% - 25\% = 75\%$

$75\% \times 30\% = 22.5\%$

$70\% - 22.5\% = 47.5\%$

$47.5\% \rightarrow 2850$

$\frac{25}{100} \times 30\% = 7.5\%$

$7.5\% \rightarrow$ **450 (boys)**

Q16 (a) $126 \div 5 = 25R1$

$3 + 7 + 3 + 7 + 4 = 24$

$(24X25) + 3 =$ **603** (sum of 126 numbers)

(b) $(909 - 7) \div 8 = 112R6$

909 will appear in column C.

Q17 $(2122.40 - 1125.60) \div 2 = 498.40$

$(498.40 + 1125.60) \div 5 = 324.80$

$498.40 \div 2 = 249.2$

$324.80 - 249.20 = 75.60$

$75.60 \div 2.70 = 28$

$28 X 7 =$ **196** (book bought)

Q18 $70 \times 50 \times 86 = 301000$

$60 \times 40 = 2400$ (base area of A)

$45 X 40 = 1800$ (base area of B)

$2400 + 2400 + 1800 = 6600$

Base area x Height = Volume

$301000 \div 6600 = 45R4000$

(a)**45cm** (b) **4ℓ**