NANYANG PRIMARY SCHOOL

PRELIMINARY EXAMINATION 2013

PRIMARY 6 MATHEMATICS PAPER 1

DURATION: 50 MINUTES

Booklet A	**/ 20**
Booklet B	**/ 20**

Paper 1 Total: / 40

Name:_____ ( )

Class: Primary 6 ( )

Date:_____

Parent's Signature:_____

Any query on marks awarded should be raised by **2 September 2013**. We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

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ANSWER ALL QUESTIONS.

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PAPER 1 (BOOKLET A)

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)

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1 Which one of the following numbers is the smallest odd number?

(1) 99 889

(2) 98 998

(3) 99 989

(4) 99 898

2 Find the value of $980 - 285 + 177$.

(1) 518

(2) 872

(3) 1088

(4) 1442

3 Which one of the following numbers is a common multiple of 10 and 14?

(1) 35

(2) 70

(3) 80

(4) 84

4 12 tenths, 34 hundredths and 56 thousandths is _____.

(1) 1.02

(2) 1.29

(3) 1.596

(4) 1.794

5 Find the value of 65.94 ÷ 7.

(1) 0.942

(2) 0.982

(3) 9.42

(4) 9.82

6 A cuboid measures 1.1 m by 40 cm by 10 cm. Find its volume.

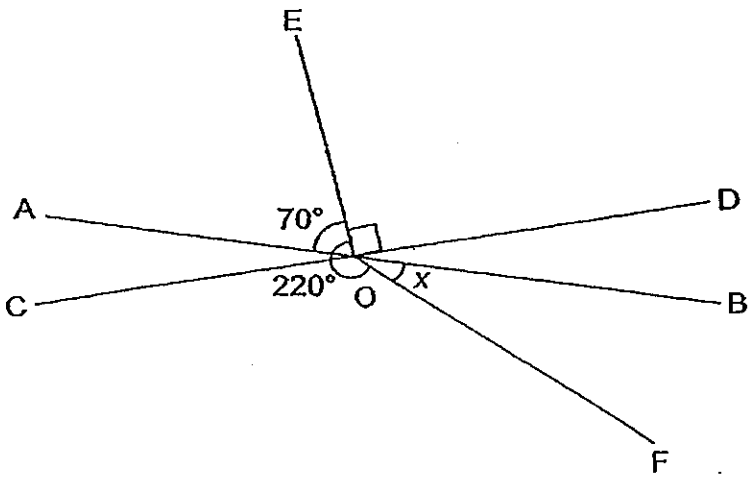
(1) 440 cm^3

(2) 4400 cm^3

(3) 44 000 cm^3

(4) 440 000 cm^3

7 In the figure below not drawn to scale, AOB and COD are straight lines. $\angle AOE = 70°$ and $\angle EOF = 220°$. Find $\angle x$.



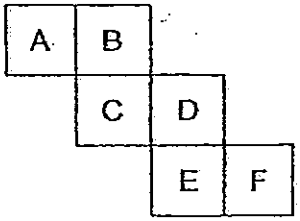
(1) 20°

(2) 25°

(3) 30°

(4) 35°

8 The diagram below shows the net of a cube. Which face is opposite to C when it is folded to form a cube?



(1) A

(2) B

(3) E

(4) F

9 A box contains 180 white and black marbles. The number of white marbles is 20 fewer than the number of black marbles. What fraction of the marbles is white?

(1) $\frac{1}{5}$

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

(3) $\frac{4}{9}$

(4) $\frac{5}{9}$

10 Alice bought a bag for $10 700 which was inclusive of 7% GST. How much did she pay for the GST?

(1) $100

(2) $107

(3) $700

(4) $749

11 Find the value of $6 \times 4 + 12 \div (8 - 4 \div 2)$.

(1) 9

(2) 16

(3) 26

(4) 30

12 The total mass of Kai, Leo and Muthu is 72 kg. Kai is twice as heavy as Leo. Muthu is 3 kg lighter than Kai. What is the mass of Muthu?

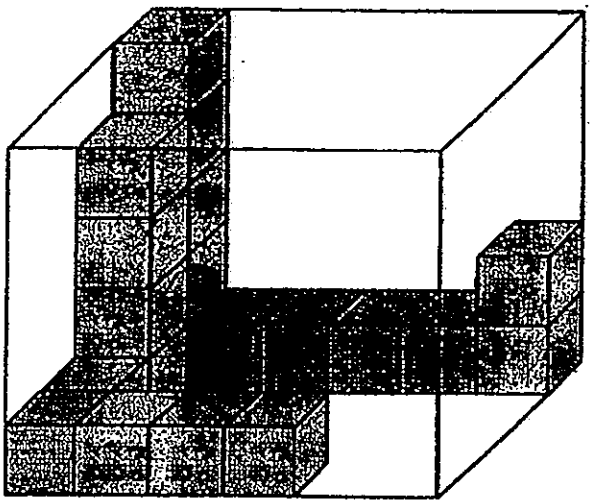
(1) 21 kg

(2) 23 kg

(3) 25 kg

(4) 27 kg

13 The figure below shows a rectangular glass box partly filled with identical unit cubes. How many more unit cubes are needed to fill it completely?



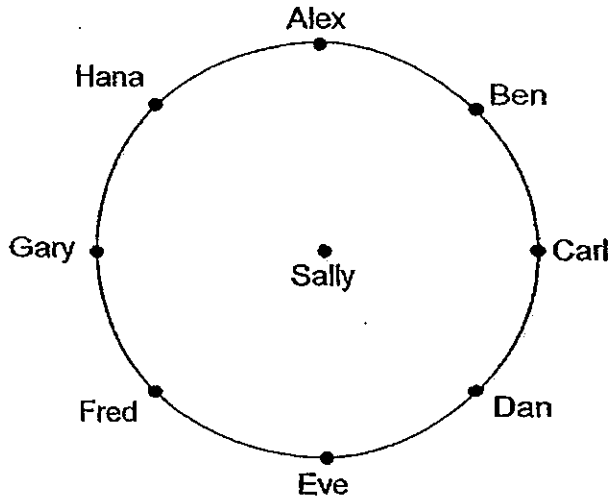
(1) 98

(2) 99

(3) 100

(4) 101

14 Eight points are marked on a circle at equal distances. Eight children are standing at the points as shown below. Sally is standing in the centre of the circle, facing Eve. Sally makes a 90° clockwise turn and then a 225° anti-clockwise turn. Who will she be facing now?



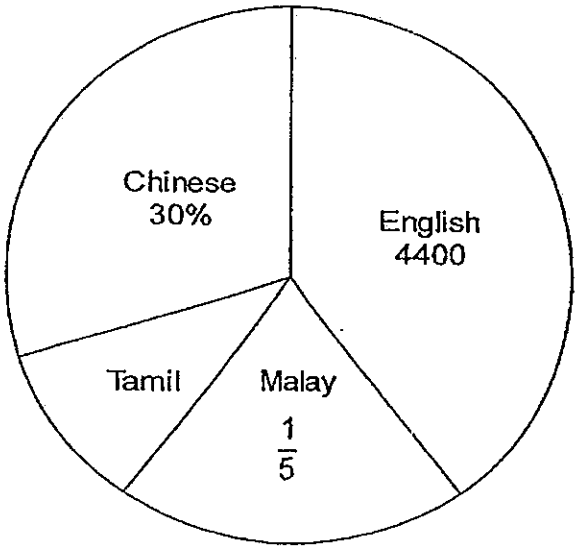
(1) Ben

(2) Dan

(3) Fred

(4) Hana

15 The pie chart below shows the number of books in a school library. The number of Tamil books is $\frac{1}{2}$ of the number of Malay books. How many Chinese books are there in the library?



(1) 1100

(2) 2200

(3) 3300

(4) 5500

Name:_____ ( ) Class: Pr 6 ( )

P6 Prelim 2013

PAPER 1 (BOOKLET B)

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 What is the missing digit in the box below?

	2	?	9	
X		1	3	
	8	0	7	
2	6	9	0	
3	4	9	7	

Ans:_____

---

17 Find the value of $1\frac{5}{8} - \frac{7}{9}$. Leave your answer in its simplest form.

Ans:_____

---

18 Find the value of $1\frac{11}{12} \times 84$. Leave your answer in its simplest form.

Ans: _____

---

19 Express $4\frac{6}{7}$ as a decimal. Give your answer correct to 2 decimal places.

Ans: _____

---

20 A supermarket opens from 7.45 a.m. to 9.30 p.m. every day.
How many hours and minutes does the supermarket open each day?

Ans: _____ h _____ min

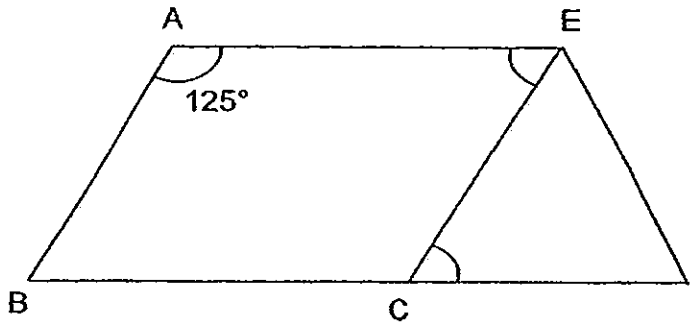
---

21 What is 20.4 metres in centimetres?

Ans: _____ cm

---

22 In the figure below not drawn to scale, ABDE is a trapezium and ABCE is a parallelogram. Given that $\angle BAE = 125°$, find the sum of $\angle AEC$ and $\angle ECD$.



Ans: _____ °

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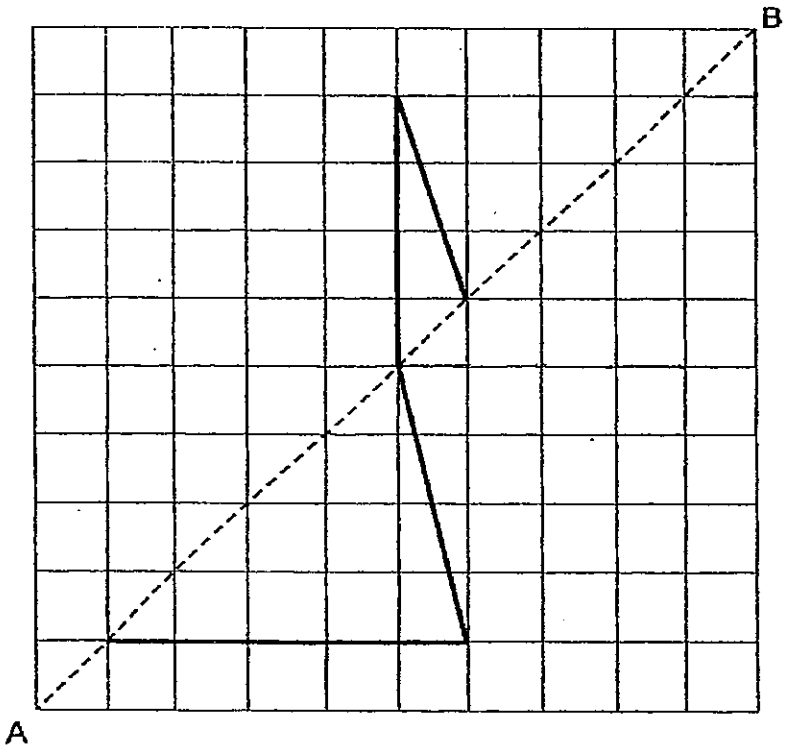
23 Complete the figure below such that AB is the line of symmetry.



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24 A tortoise crawled 2.4 m in 40 seconds.
Find its average speed in cm/s.

Ans: _____ cm/s

---

25 The table below shows the different types of fruits sold in a day.

Type of Fruit	Number of Fruits
Pear	28
Orange	36
Apple	?

The ratio of the number of apples sold to the total number of fruits sold is 3 : 7. How many apples are sold?

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)

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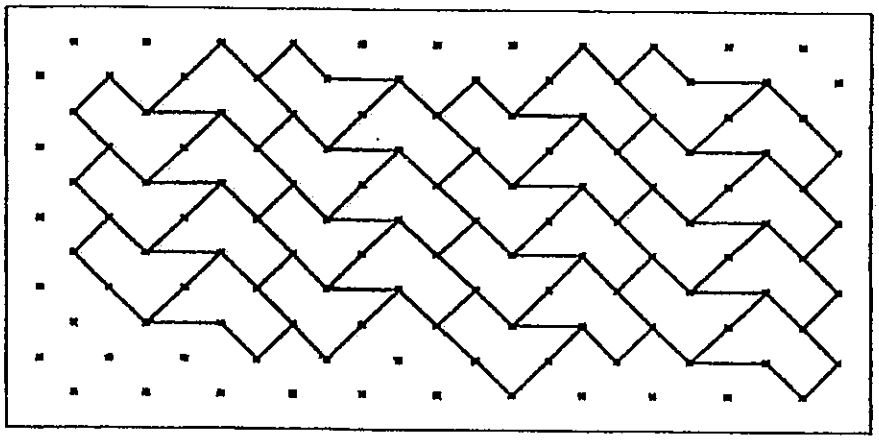
26 The pattern in the box shows part of a tessellation. Extend the tessellation by drawing two more unit shapes in the space provided in the box.



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27 Find the value of $\frac{3}{4} \div \frac{5}{6} - \frac{2}{7}$.

Ans: _____

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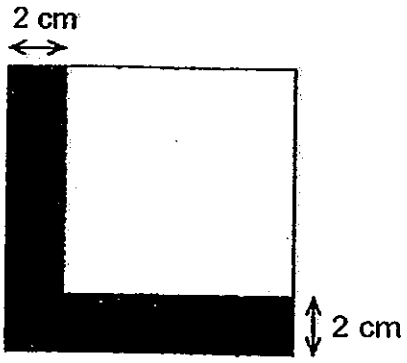
28 The figure below is made up of 2 overlapping squares. The area of the shaded part is 44 cm^2. What is the length of the smaller square?



Ans:_____cm

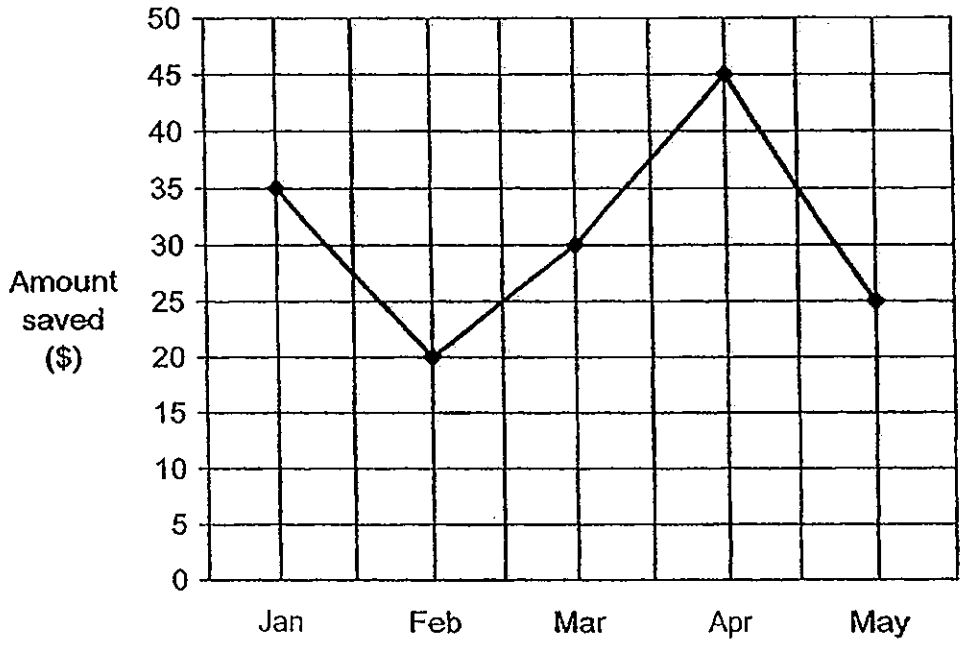
---

29 In a carton, cans were packed into 8 rows and there were 5y cans in each row. After the carton was fully packed, there were 23 cans left. How many cans were there at first? Give your answer in terms of y.

Ans:_____

---

30 Krishnan received $120 from his father each month for his pocket money. The line graph below shows the amount of pocket money he saved each month.



Write down all the months in which Krishnan saved more than 25% of his pocket money.

Ans: _____

END OF PAPER

NANYANG PRIMARY SCHOOL

PRELIMINARY EXAMINATION 2013

PRIMARY 6 MATHEMATICS PAPER 2

DURATION: 1 HOUR 40 MINUTES

Paper 2 Total	**/ 60**
GRAND TOTAL	**/ 100**

Name: _____ ( )

Class: Primary 6 ( )

Date: _____

Parent's Signature: _____

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PAPER 2

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)

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1 Given that $a = 5$, find the value of $4a + 7a + 9 - 3 - 3a$.

Ans: _____

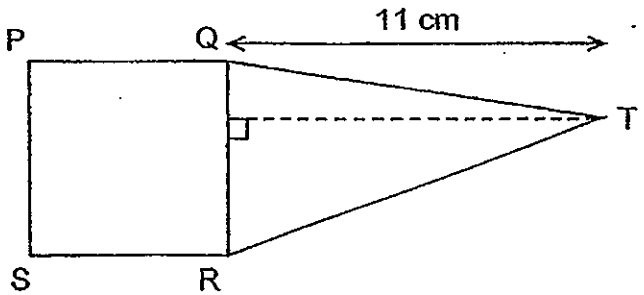
---

2 Peter's Mathematics score for the mid-year examination was 96. His Mathematics score for the year-end examination was 80. Find the percentage decrease in his Mathematics score. Express your answer as a mixed number.

Ans: _____%

---

3 The figure below is made up of a square and a triangle.
Square QPSR has an area of 36 cm^2. Find the area of triangle QRT.



Ans: _____cm^2

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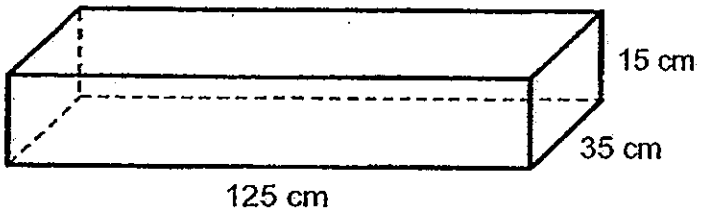
4 The figure shows an empty rectangular tank measuring 125 cm by 35 cm by 15 cm.



14 litres of water are poured into the empty tank. Find the height of the water level in the tank.

Ans: _____ cm

---

5 There were 4 participants who took part in a fitness programme. Their masses are shown in the table below.

Participant	Mass (kg)
Andy	165
Benny	87
Carl	155
Dan	108

When 1 participant dropped out of the programme, the average mass of the 3 remaining participants was 120 kg. Who had dropped out of the programme?

Ans: _____

For questions **6** to **18**, show your working clearly in the space provided for each question 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)

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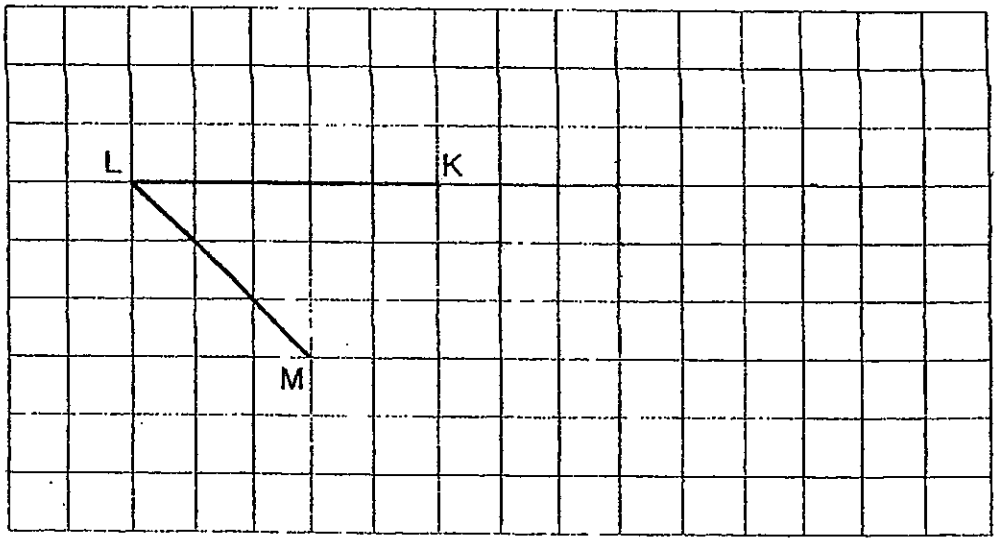
6 In the square grid given below, two sides of a parallelogram KLMN have been drawn.

(a) Complete the drawing of the parallelogram KLMN.

(b) KN also forms one side of a triangle KNT in which ∠KNT is a right angle and KN = NT. Complete the drawing of the triangle KNT within the grid. Label your drawings.



[3]

---

7 John had $200 more than Mimi. When Mimi gave John $50, John had 5 times as much as Mimi. How much money did Mimi have at first?

Ans: _____ [3]

---

8 Every day, Michelle saved $0.40 and Peiying saved $0.80 more than Michelle. Peiying started saving 2 weeks later than Michelle but had saved $3.20 more than Michelle. How many days had Peiying been saving?

Ans: _____ [3]

9

YUMMY RESTAURANT

For every 5 dining vouchers purchased,
a 20% discount will be given to the 5th voucher.

Mrs Lee bought $1386 worth of dining vouchers. Given that each voucher cost $45 before discount, how many vouchers did she buy?

Ans: _____ [3]

---

10 Fang cycled at a constant speed of 200 m/min from her house to a park. Without spending any time at the park, she walked back to her house along the same route at a constant speed of 80 m/min. She took a total of 42 minutes to make the round trip. Find the distance between her house and the park.

Ans: _____ [3]

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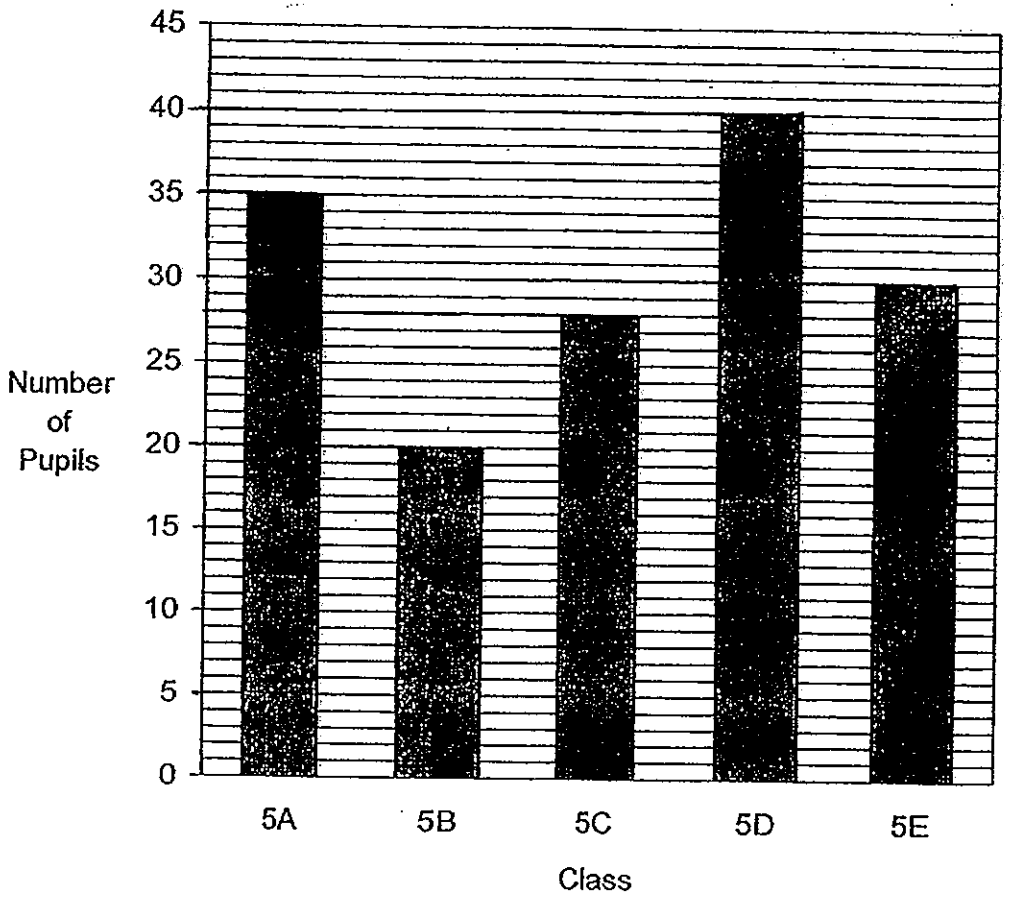
11 The bar graph below shows the number of pupils in 5 classes who passed a Science test. There are 40 pupils in each class.



(a) How many pupils in 5E passed the Science test?

(b) Which class has the most number of pupils who failed the Science test?

(c) Express the total number of failures in 5A and 5B as a fraction of the total number of pupils in the 5 classes. Leave your answer in its simplest form.

Ans: (a)_____ [1]

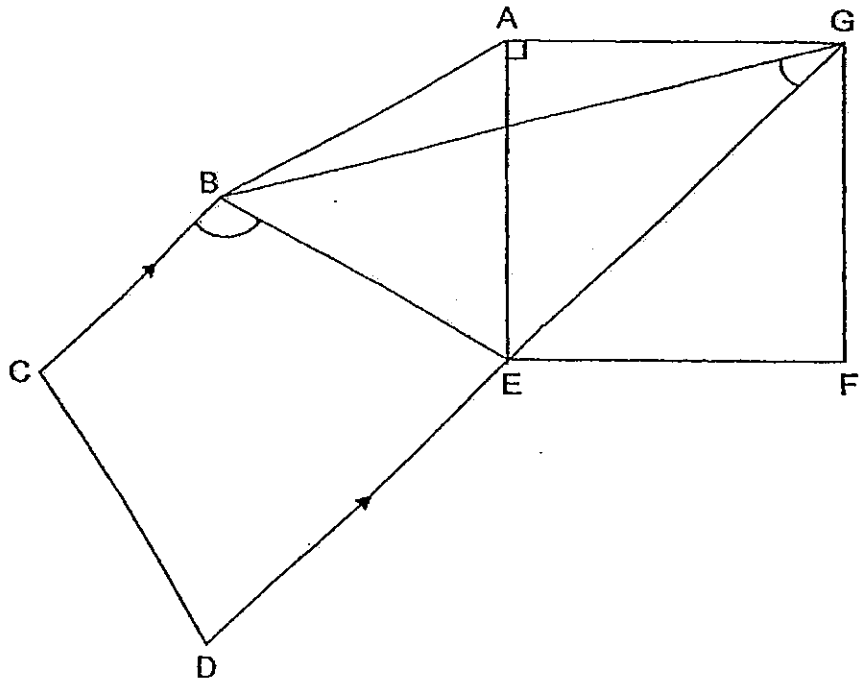
(b)_____ [1]

(c)_____ [2]

12 In the figure below, BCDG is a trapezium with CB parallel to DG. ABE is an equilateral triangle and AEFG is a square.

(a) Find $\angle$ BGE.

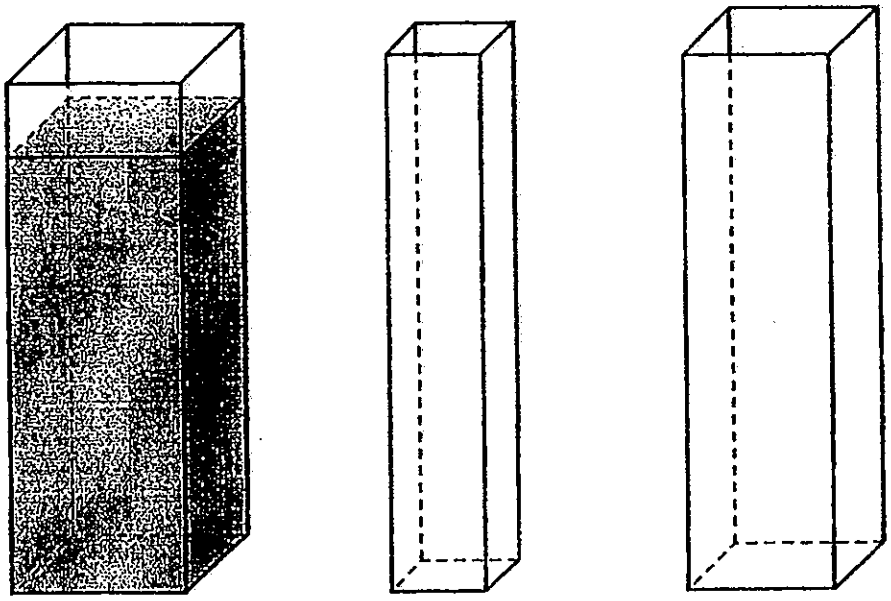
(b) Find $\angle$ CBE.



Ans: (a)_____ [2]

(b)_____ [2]

13 J, K and L are three rectangular containers. The base areas of J, K and L are 120 cm^2, 50 cm^2 and 80 cm^2 respectively. At first J contained 4960 cm^3 of water while K and L were empty as shown below.

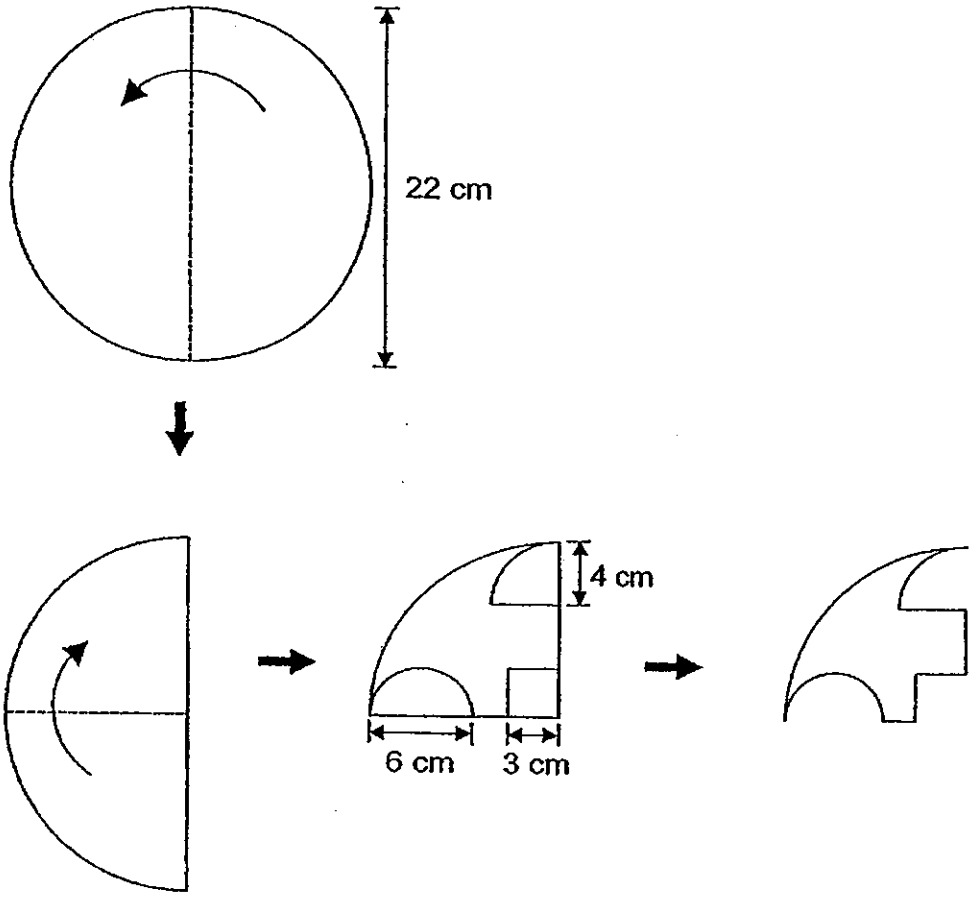


J K L

Minah then poured some water from J into K and L. After that, the height of the water level in L was 4 cm lower than that in K and 8 cm lower than that in J. Find the difference in the volume of water between J and L in the end.

Ans: _____ [4]

14 Elvina had a circular piece of paper. She folded it into quarters and then cut away a semicircle, a quarter circle and a square from the corners as shown below. Find the perimeter of the paper left after Elvina unfolded the paper. (Take $\pi = 3.14$)



Ans: _____ [4]

15 David had $\frac{1}{2}$ the number of marbles Ted had at first. Their father had a box of marbles. He gave $\frac{1}{3}$ of the marbles in the box to David and the remaining marbles to Ted. After that, David gave Ted half of his total marbles.

(a) David had 80 marbles at first and 60 marbles in the end. How many marbles did their father have?

(b) Express the number of marbles David had in the end as a fraction of the number of marbles Ted had in the end. Give your answer in its simplest form.

Ans: (a)_____ [3]

(b)_____ [2]

16 Amy, Brenda and Carrie shared a bag of 31 coins with a total value of $12.20. The bag only contained 20¢ coins and 50¢ coins. Amy received only 20¢ coins. Brenda received 3 more coins than Amy and Brenda's 3 extra coins added up to 90¢. Carrie received 7 more coins than Brenda and Carrie's 7 extra coins added up to $2.60. How much money did Carrie receive?

Ans: _____ [5]

17 Alice bought some beads and gave $\frac{1}{3}$ of them to Eve. Eve bought some stamps and gave $\frac{1}{3}$ of them to Alice. Alice lost 32 beads and Eve lost 26 stamps. After that, the number of beads and stamps Alice had were in the ratio 8 : 5 and the number of beads and stamps Eve had were in the ratio 3 : 2. How many beads did Alice buy?

Ans: _____ [5]

18 Ms Ho numbered thirty pupils by writing 1, 2, 3, ... , 28, 29 and 30 on their name tags.

(a) How many digits did she write in all?

(b) She arranged all the thirty pupils to stand in a row, starting from Number 1 to Number 30.
Next, for every second pupil, she asked each pupil to sit.
Then, for every third pupil, she asked each standing pupil to sit and each sitting pupil to stand.
She followed the same pattern (which is to ask each standing pupil to sit and each sitting pupil to stand) for every fourth pupil, every fifth pupil, and so on till the 30^{th} pupil.
How many pupils were standing after the whole process was completed?

Ans: (a)_____[1]

(b)_____[3]

END OF PAPER

Answer Key

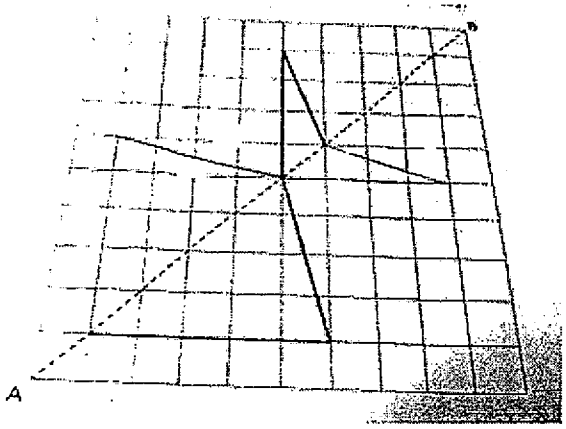
EXAM PAPER 2013

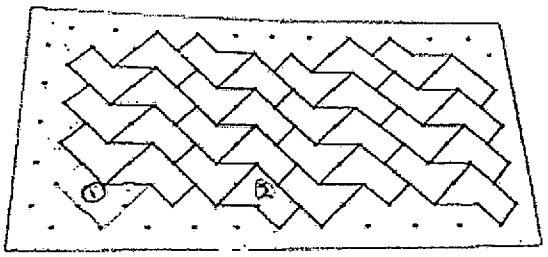
SCHOOL : NAN YANG PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATHS
TERM : SA2

Booklet A

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16
1	2	2	3	3	3	3	4	3	3	3	4	3	1	3	

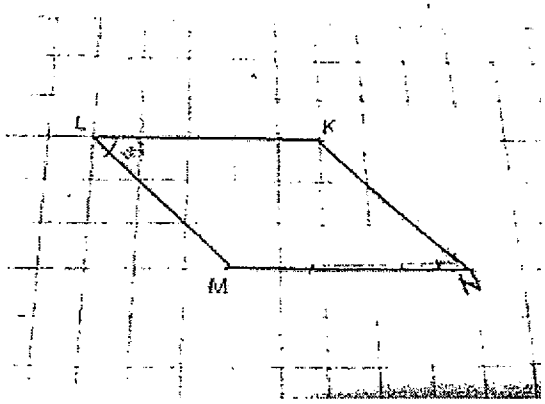
16) 6
17) 61/72
18) 161
19) 4.86
20) 13 h 45 min
21) 2040 cm
22) 110°
23)
24)6 cm /s
25) 48
26)
27)43/70
28) 10cm
29)40y + 23
30)Jan , April





Paper 2

1) (4x5) + (7x5) +9-3-(3x5) = 46
2) 96- 80 = 16
$\frac{16}{96} \times 100\% = 16\frac{2}{3}\%$
3) ½ x 6 x 11 = 33
4) 14l = 14000 cm^3
14000÷(125x35) = 3.2cm
5) 165+87+155+108 = 515
120x3 = 360
515-360 = 155
Carl
6) .
7) 200+50+50 = 300
1u --- 300÷4 = 75



75+50= $125

8) 14x0.40 = 5.60
5.60+3.20 = 8.80
8.80÷0.8= 11

9) 45x4 = 180
80% x45 = 36
180+36= 216
1386÷16 = 6R90
90÷45 = 2
6x5+2 = 32

10) Total --- 42mions
1 trip – 200m/min
2nd trip – 80m/min
Distance is the same for both trips
200x12=2400
30x80=2400

11) a) 30
b)5B
c) 40-35= 5
40-120=20
20+5 = 25
40x5 = 200
25/200 = 1/8

12) A) 180-60-90= 30^0
30÷2 = 15
45-15=30
b) 60+45= 105°

13) 4x50=200
8x120=960
4960-200-960=3800
120xH +50xH+80xH = 3800
H = 23.2
120x23.2-80x15.2 = 1568

14) 6x6=36
3.14x22=69.08
2x3.14x6= 37.68
2x(1/2 x3.14x8x8) = 41.12
6x4=24
41.12+24+37.68+69.08= 171.88cm

15) a)
60x2= 120
120x3=360
80x2=160
120-80=40
40x3=120
b)
40x2=80
160+80=240
3240+60=300
60/300= 1/5

16) 3u --- 31-3-3-7=18
18÷3 = 6

Amy --- 6x0.2 = $1.20
12.20-1.20=11
If all 31coins are 50cent --- 31x0.5 = 15.50
Different --- 50cents -20 cents = 30 cents
15.50-12.20 = 3.30
3.30 ÷0.3 = 11
31-11 = 20
3x0.2+13x0.5 = $ 7.1
$7.10

17) Beads Alice Bouthgt --- 8u +3p+32 = 9p
Stamps Eve bouthgt --- 5u +2p+26
2/3 of alice --- 8u +312
1/3 of beads --- 3p
3/3 --- 3x3p = 9p
8u +3p+32---9p
80u - -- 60p – 320

1/3 of stamp – 5u
3/3 of stamp – 15u
50u +2p+20 --- 150
15u – 5u ---- 2p +26
10u--- 2p +26
80u --- 16p +208

60p -320 --- 16+208
1p --- 12
9p – 12x96 = 108

18) a)1to 9 = 9
10 to 20 = 22
20 to 30 = 20
9+22+20 = 51

b) 1x1 = 1
2x2 = 4
3x3 = 9
4x4=16
5x5= 25
Ans : 5