NANYANG PRIMARY SCHOOL
FIRST CONTINUAL ASSESSMENT 2008
MATHEMATICS
PRIMARY SIX

Name: _____( )   Marks: /100

Class: Primary 6 ( )   Parent's Signature:

Date: 29 February 2008

Duration: 2 hours 15 minutes

_____

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
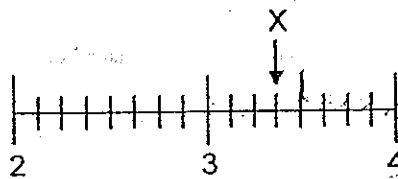Answer Sheet.

(20 marks)

_____

1   What is the value of the digit 2 in 320 050?

(1)   2000

(2)   2005

(3)   20 000

(4)   20 050

2    $\frac{3}{4}$ of the books in a bookshop are fiction. $\frac{1}{3}$ of the remainder are non-fiction and the rest are comics. What fraction of the books are comics?
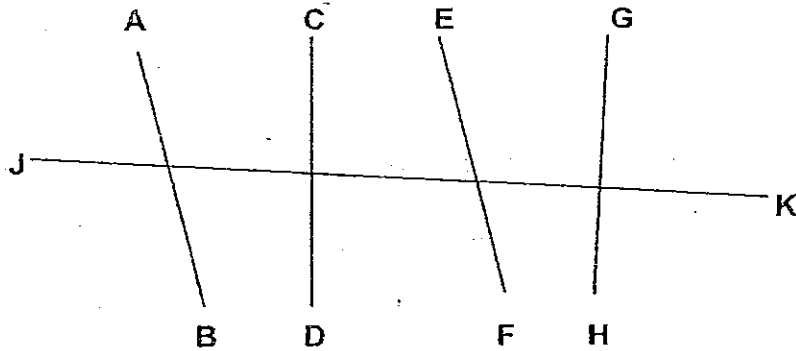
(1) $\frac{1}{12}$

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

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

(4) $\frac{2}{3}$
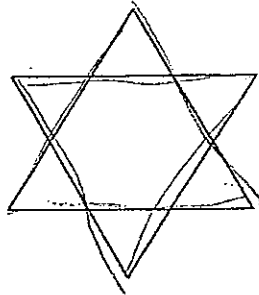
3   In the number line below, what is the value of X?

(1)   3.125

(2).   3.15

(3)   3.3

(4)   3.375

**5**   Which of the following pairs of lines is perpendicular to each other?

(1)   AB and EF

(2)   CD and GH

(3)   CD and JK

(4)   GH and JK

6   How many lines of symmetry are there in the regular figure below?
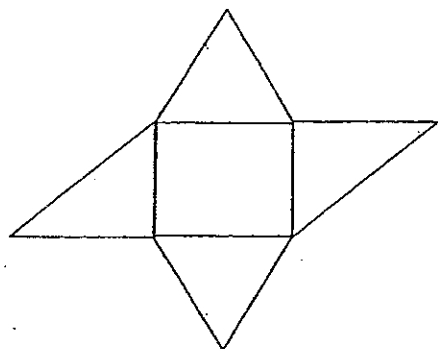

(1)   6

(2)   8

(3)   3

(4)   4

4

4   Helen wants to cover her rectangular table top with identical circular posters as shown below. The length of her table top is 50 cm and she uses 40 circular posters altogether. What is the breadth of Helen's table top?
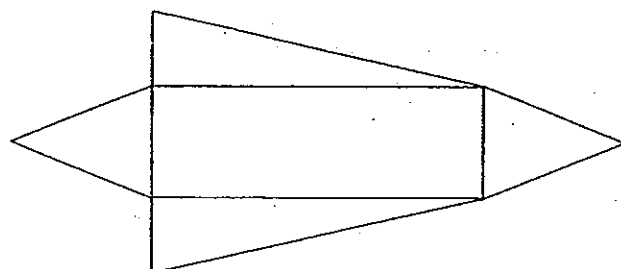

50 cm

?
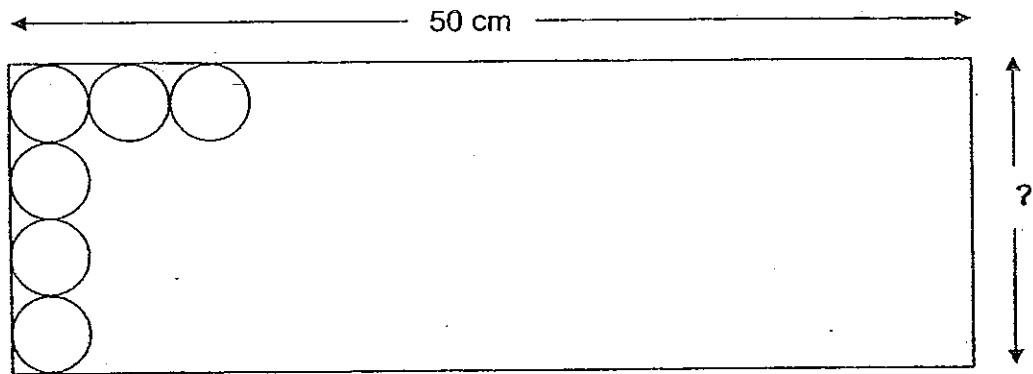
(1)   5 cm

(2)   10 cm

(3)   20 cm

(4)   33 cm

7   Which of the following is the net of a pyramid?
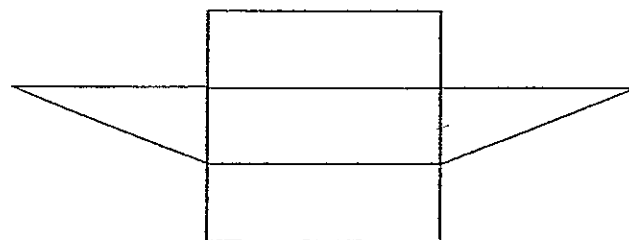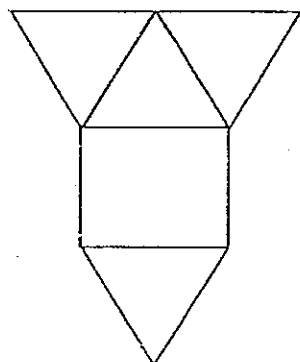
(1)

(2)

(3)

(4)

95

8   Emery took $\frac{1}{4}$ of a pizza and Jon took $\frac{1}{6}$ of the same pizza. What was the ratio of Emery's share of the pizza to Jon's share of the pizza?

(1)   1 : 1

(2)   1 : 2

(3)   2 : 3

(4)   3 : 2

9   Mr Sim bought a television set at a discount of 20%. If he paid $2400 for the television set, what was the price of the television set before the discount?

(1) $1800

(2) $1920

(3) $2880

(4) $3000

10   Six oranges are sold at $(12p - 3q)$. What is the cost of 3 oranges?

(1) $\$\left(\dfrac{12p-3q}{3}\right)$

(2) $\$\left(\dfrac{12p-3q}{2}\right)$

(3) $\$2p - 3q$

(4) $\$6p - 3q$

9b

11 Guo Yang and Maniam had 380 stamps altogether. $\dfrac{2}{5}$ of Guo Yang's stamps is $\dfrac{4}{9}$ of Maniam's stamps. How many stamps must Guo Yang give Maniam so that they have an equal number of stamps?

(1)   10

(2)   20

(3)   180

(4)   200

12 Study the sign below.
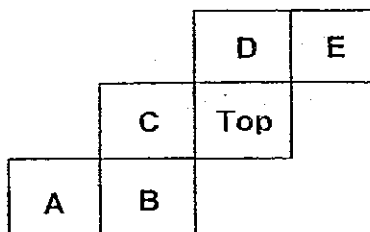

NY CYBERCAFE (open daily)

Opening hours: 9.30 a.m. to 6.40 p.m.

Closed for lunch: 1.30 p.m. to 2.15 p.m.

For how long is NY Cybercafe opened each day?

(1)   8 h 25 min

(2)   9 h 5 min

(3)   9 h 25 min

(4)   10 h 5 min

13 The figure below shows the net of a cube. Which of the letters is the base of the cube?

		D	E
	C	Top	
A	B		

(1)　A

(2)　B

(3)　C

(4)　D

14 The average of A and B is 6 and the average of B and C is 10. The sum of A and C is 18. Find the sum of A, B and C.

(1)　25

(2)　30

(3)　32

(4)　34

15 For every 6 files that Mr Singh bought, he received 1 file. One file costs $3. If he needs 51 files, how much would he have spent?

(1)　$126

(2)　$132

(3)　$144

(4)　$153

98

Name: _____(   )   Class: Pr 6 (   )

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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   Find the value of $51 - (20 + 19) \div 3 - 3 \times 2$.

Ans: _____

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17   What is the missing number in the box?

$$\frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \frac{1}{5} + \frac{1}{10} \times \boxed{}$$

Ans: _____

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18   The mass of a school bag is 3.05 kg when rounded off to 2 decimal places. What is the **greatest** possible mass of the school bag? Give your answer up to 3 decimal places.
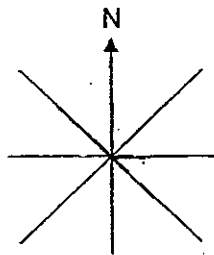
Ans: _____ kg

99

19   Express 2.04 km as a fraction of 3 km. Give your answer in the simplest form.

Ans: _____

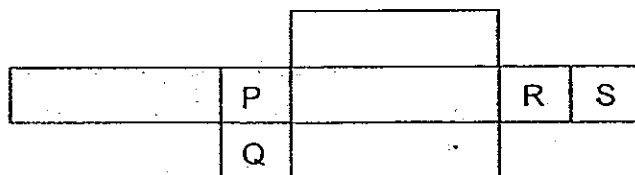20   Alice is facing Southeast now. If she turned 225° anti-clockwise, in which direction would she be facing?

N

Ans: _____

21   The figure below shows a solid.

Which of the following faces, P, Q, R and S, is/are **NOT** part of the net of the above solid?

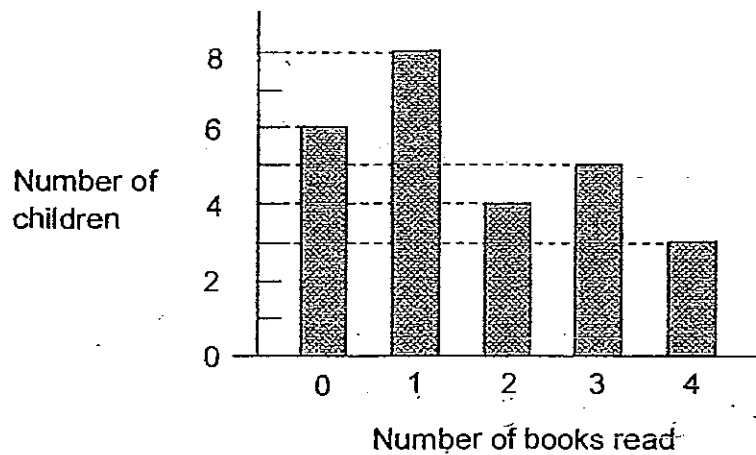|		
P		R	S
Q		

Net of solid

Ans: _____

22 The bar graph below shows the number of books that some children read in a week. How many books were read in the week?

Number of children

Number of books read

Ans: _____

---

23 The sum of five numbers is 315. The average of four of the numbers is 66. Find the fifth number.

Ans: _____

24   Mrs Goh used the following amount of ingredients to bake 6 muffins.

- 450 g flour
- 60 g unsalted butter
- 285 ml buttermilk
- 6 tablespoons milk

How much unsalted butter will she need to use if she wants to bake 15 muffins?

Ans: _____ g

---

25   Find the value of $11b + 2 - b - 3$ when $b = 4$.

Ans: _____

Questions **26** to **35** carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(20 marks)

26 There are 216 people in a theatre. $\frac{1}{3}$ of the male audience and $\frac{3}{4}$ of the female audience are children. There is an equal number of male and female audience. How many children are there in the theatre?

Ans: _____

27 Patsy received 0.4 of a sum of money. The rest of the money was shared equally between Qiang En and Rachel. If Rachel received $180, what was the total sum of money shared by the three children?

Ans: $ _____

13

103

28   A tin and a bottle contain 9 kg 25 g of coffee beans. The tin contains four times as much coffee beans as the bottle. How much **more** coffee beans are there in the tin than in the bottle?

Ans: _____ kg _____ g

---

29   A marker costs $1.80. The total cost of two identical pens is 40 cents more than the marker. If Ali had $8 and he bought 2 markers, how many pens could he buy with the remaining money?

Ans: _____

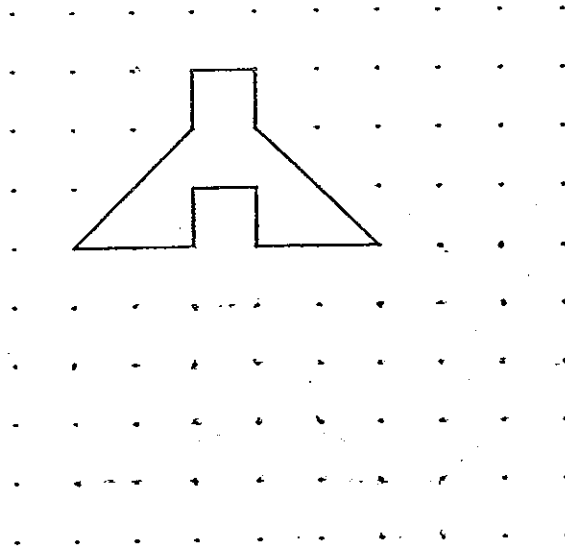
**30**   The perimeter of a rectangle is 30 cm. What is the **greatest** possible area of this rectangle?

Ans: _____ cm^2

31 In the grid below, draw 4 more unit shapes to form a tessellation.

32 The figure below consists of 2 overlapping circles. $\frac{2}{5}$ of the smaller circle and $\frac{2}{9}$ of the bigger circle are shaded. What is the ratio of the shaded area to the area of the figure? Give your answer in the simplest form.
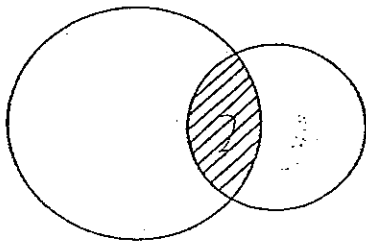
Ans: _____

33 The ratio of the number of sweets Jason has to the number of sweets Matt has is 3 : 5. The ratio of the number of sweets Lionel has to the number of sweets Jason has is 5 : 2. If Lionel has 45 sweets, how many sweets does Matt have?

Ans: _____

34 Mr Lee gives 35% of his salary to his wife and saves 20% of it. If he saves $500 every month, how much does he give his wife?

Ans: $ _____

35 Sarah saves $4w daily. Her brother saves $3 less than her daily. Find the number of days both Sarah and her brother take to save a total of $10. Leave your answer in terms of w.

Ans: _____

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For questions **36** to **48**, 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.
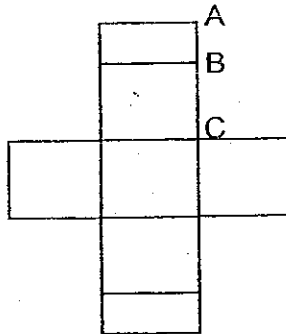
(50 marks)

___

36 The figure below is made up of Triangle FHJ and Trapezium ABDE. Given that GB // FC and BJC is an isosceles triangle, find ∠GHB.
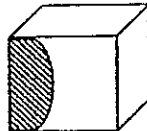

Ans: _____ [3]

�7
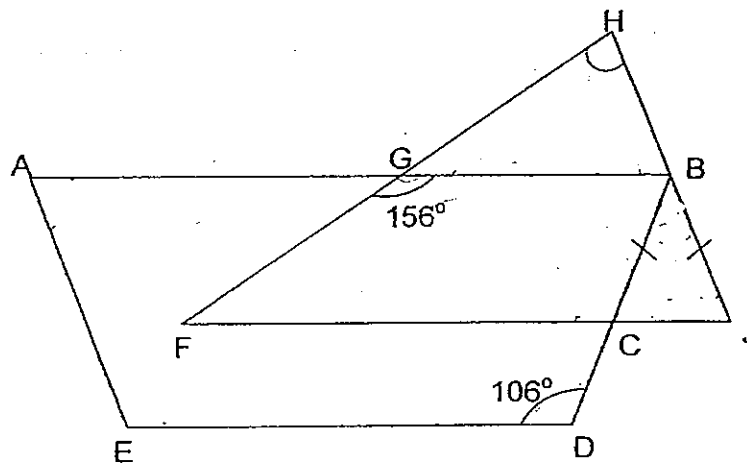
37 (a) The net below forms a cube when folded. A face of the cube was cut into 2 equal parts. What is the ratio of AB to AC?
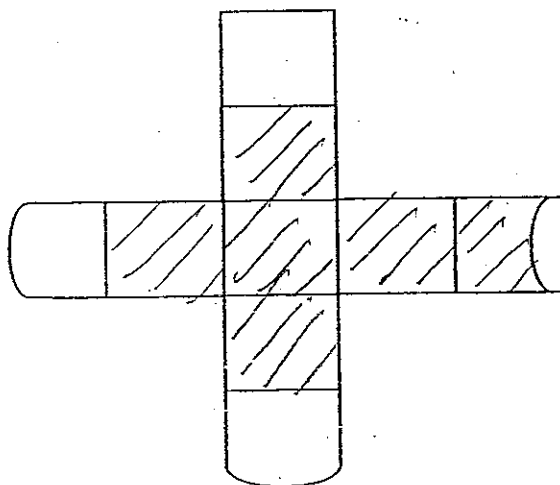

Ans: (a) _____ [1]

(b) The cube below has a semi-circular hole on one of the faces as shown below.

In the figure below, shade the faces that can form the net of the cube above. [2]

38   Two identical taps, when turned on at the same time, take 5 minutes to release 10 *l* of water. How many of such taps, when turned on at the same time, are needed to release 27 *l* of water in 3 minutes?

Ans: _____ [3]

39   Jaffa gave 60% of his marbles to his brother and 25% of the remainder to two friends. Each of his friends received 30 marbles. How many marbles did his brother receive?

Ans: _____ [3]

40 A slice of cake costs m. Yi Ling bought n such slices of cake. Find the smallest possible sum of m and n if Yi Ling paid a total of $24.

Ans: _____ [3]

41 The cost of a chicken pie is thrice the cost of a muffin. Mrs Seetho paid a total of $40 for 20 muffins and 10 chicken pies. Find the cost of a chicken pie.
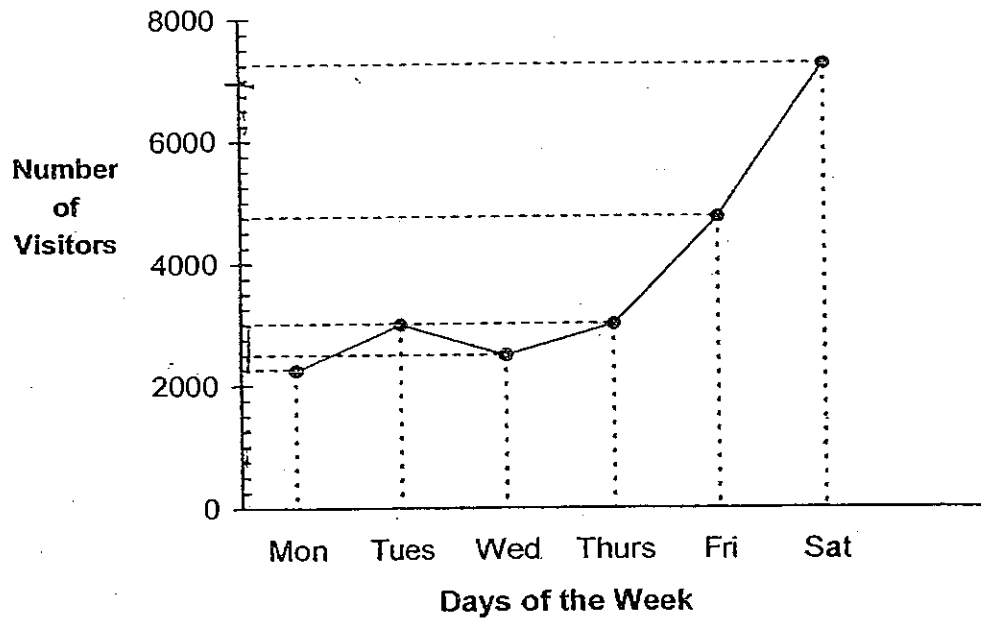
Ans: _____ [3]

42 Nora bought a bottle of detergent. She used an equal amount of detergent each day. She had $\frac{2}{3}$ of the detergent left after 5 days. She had 1.2 l of detergent left after another 7 days. What was the volume of the detergent at first?

Ans: _____ [4]

43 The line graph below shows the number of visitors at the zoo from Monday to Saturday.

(a) If each visitor paid $12 for a ticket, how much money was collected on weekdays?

(b) The number of visitors who visited the zoo on Sunday was 30% more than the number of visitors on Friday. What is the difference in the number of visitors between Saturday and Sunday?

Ans: (a) _____ [2]

(b) _____ [2]

44   Sandy and Christine went to the bookshop and bought some stationery. Sandy bought 6 pens and 4 exercise books for $6.60. Christine bought 4 pens and 6 exercise books for $5.90. How much does each pen cost?

Ans: _____ [4]

45 A faulty weighing scale showed a reading of 0.2 kg when nothing was placed on it. A box which contained 21 identical books was placed on the weighing scale. After $\frac{5}{7}$ of the books were removed from the box, the weighing scale showed a reading of 32.68 kg. Given that the mass of each book was 0.8 times the mass of the box, find the mass of the box.

Ans: _____ [5]
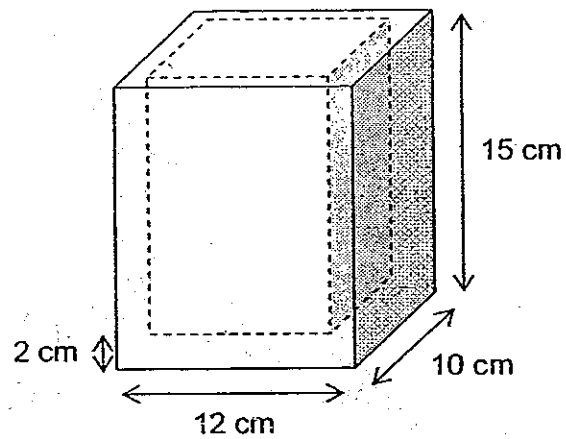
46   The figure below is made up of a rectangle, a square and a shaded triangle. Find the area of the shaded triangle.
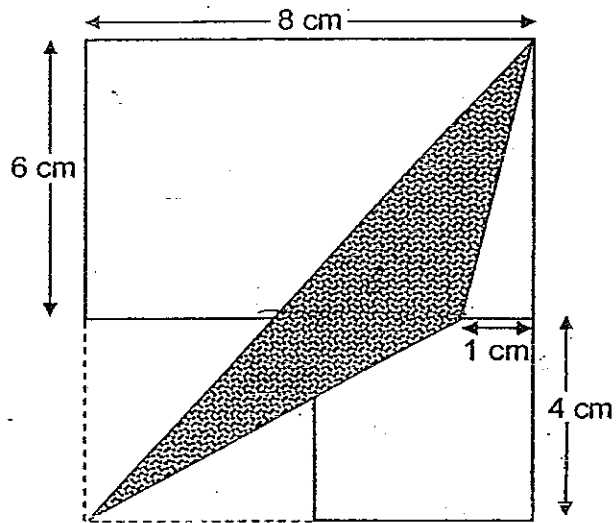
Ans: _____ [5]

47   The wooden box shown below has the sides 12 cm by 10 cm by 15 cm.
     It has no cover at the top and has a thickness of 2 cm around it.

(a)   What is the capacity of the box?

(b)   What is the **maximum** number of 2-cm cubes that can be placed in
      the box?

Ans: (a) _____ [3]

        (b) _____ [2]

48 Sean and Tim had some money at first. Sean gave Tim $60 and both of them had the same amount of money. If Tim were to return $54 to Sean, the ratio of Sean's money to Tim's money would be 5 : 2.

(a) How much money did Sean have at first?

(b) What is the ratio of Sean's money to Tim's money at first?

Ans: (a) _____ [3]

(b) _____ [2]

END OF PAPER

Setters: Ms Tan Si Ming
          Mrs Rachel Tan

ANSWER SHEET

EXAM PAPER 2008

SCHOOL : NANYANG PRIMARY SCHOOL
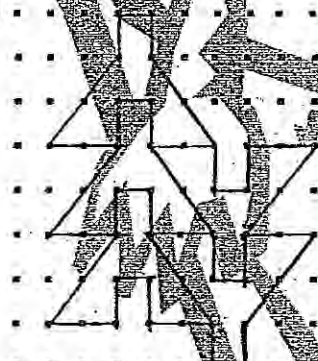SUBJECT : PRIMARY 6 MATHEMATICS

TERM : CA 1

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

16)32   17)4   18)3.05kg   19)17/25   20)West

21)Q,S   22)43   23)51   24)150g   25)39

26)117   27)$600   28)5kg 415g   29)4   30)14
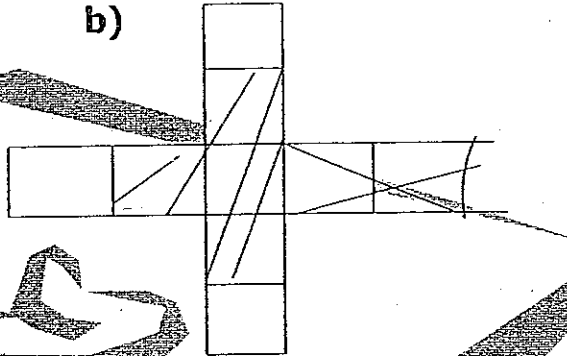
31) . . . .   32)1:6   33)30   34)$875

35)$ $\dfrac{10}{8w-3}$

36)180° -156° =24°
   180° -106° =74°
   180° -148° =32°
   180° -106° =74°
   180° -98° =82°

119

37) a) 1:3   b)

38) (2 tap) 5min → 10L
    (1 tap) 5min → 5L
    (1 tap) 1 min → 1L
    (1 tap) 3min → 3L
    (9 tap) 3min → 9x3L = 27L

39) 25% → 30x2 = 60
    100% → 60x4 = 240
    40% → 240
    60% → $\frac{240 \times 60}{40}$
    = 360 marbles.

40) 24 = n×m
    24 = 1×24   1+24 = 25
       = 2×12   2+12 = 24
       = 3×8   3+8 = 11
       = 4×6   4+6 = 10
    The smallest possible sum of m and n is 10

41) 3×10 = 30
    30+20 = 50
    50 units → $40
    3 units → $\frac{40 \times 3}{50}$
    = $2.40

42) 3 days → 1200ml

   3+7+5=15

   15 days → $\dfrac{1200 \times 15}{3}$

   =6000ml

   =6L

43) a) 2000 ÷ 8 = 250

   4750+2500+2250+3000+3000=15500

   15500x12=$186000

   b) Sunday → $\dfrac{4750 \times 130}{100}$ =6175

   7250-6175=1075 visitors.

44) 6p + 4L → $6.60

   4p + 6L → $5.90

   18p+12L → $19.80

   8p+12L → $11.80

   10p → $8

   1p → $0.80

45) $\dfrac{5}{7} \times \dfrac{21}{1}$ =15

   21-15=6

   Box+6 books=32.68-0.2=32.48kg

   0.8x6=4.8

   4.8+1=5.8

   Box=32.48 ÷ 5.8=5.6kg

46) 6+4=10

   ½ x8x10=40

   ½ x1x6=3

   8-1=7

   ½ x7x4=14

   4x1=4

   40-3-14-4=19cm²

47)a) H→15-2=13
L→12-4=8
B→10-4=6
13x8x6=624cm₃

b)13÷2=6 R1
8÷2=4
6÷2=3
6x3x4=72

48)a)3 units→54x2=108
5 units→$\frac{108 \times 5}{3}$=180

180-54=126
126+60=$186

b)2 units→$\frac{108 \times 2}{3}$=72

60-54=6
72-6=66

Sean : Tim
= 186 : 66
= 31 : 11

122