NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2 – 2012
PRIMARY 5

MATHEMATICS

Paper 1

Section A: 15 Multiple Choice Questions (20 marks)

Section B: 15 Short Answer Questions (20 marks)

Total Time for Paper 1: 50 minutes

INSTRUCTION TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided for Questions 1-15.
6. You are not allowed to use calculator for Paper 1.

Marks Obtained

Paper 1		/ 40
Paper 2		/ 60
Total		/ 100

Name : _____ ( )

Class : _____

Date : 24 October 2012 Parent's Signature: _____

Section A (20 marks)

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

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1. What is the sum of 7 tenths and 14 hundredths?

   (1) 2.10

   (2) 1.47

   (3) 0.84

   (4) 0.21

2. Mr Tan bought a car for about $219 000 when rounded off to the nearest thousand. Which one of the following could be the actual cost of the car?

   (1) $218 095

   (2) $218 495

   (3) $219 259

   (4) $219 625

3. Express $\frac{7}{9}$ as a decimal. Give your answer correct to 2 decimal places.

   (1) 0.77

   (2) 0.78

   (3) 1.28

   (4) 1.29

4. Which one of the following is equivalent to 80%?

(1) 0.08

(2) 0.8

(3) 8

(4) 80

5. What is the value of $18 + 3 \times 5 \div (5 - 2)$?

(1) 11

(2) 19

(3) 23

(4) 35

6. Arrange the following fractions from the largest to the smallest.

$$\frac{2}{3}, \frac{8}{9}, \frac{1}{2}$$

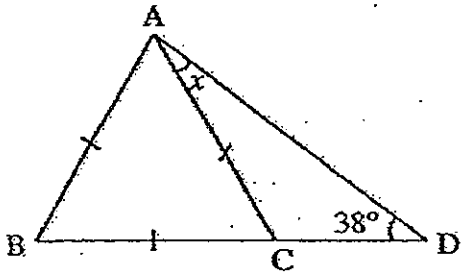
(1) $\frac{1}{2}, \frac{8}{9}, \frac{2}{3}$

(2) $\frac{8}{9}, \frac{2}{3}, \frac{1}{2}$

(3) $\frac{8}{9}, \frac{1}{2}, \frac{2}{3}$

(4) $\frac{1}{2}, \frac{2}{3}, \frac{8}{9}$

7. ABC is an equilateral triangle. BCD is a straight line.
Find $\angle x$.



(1) 22°

(2) 38°

(3) 52°

(4) 98°

8. Mr Lim deposits $8 000 in a bank which pays an interest of 2% per year.
How much interest will he get in 1 year?

(1) $80

(2) $160

(3) $8 080

(4) $8 160

9. Robert takes 14 days to read $\frac{2}{7}$ of a book. At this rate, how many days does he take to read the whole book?

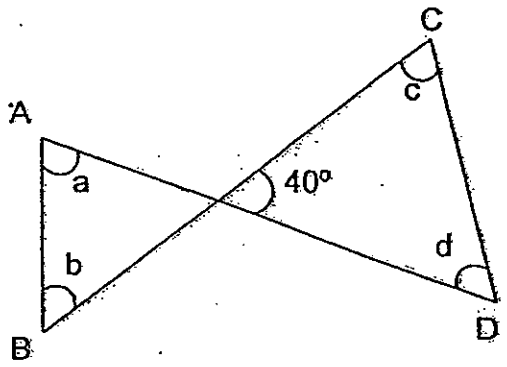
(1) 35

(2) 49

(3) 70

(4) 98

10. The figure below is not drawn to scale. AD and BC are straight lines. Find the sum of angles a, b, c and d.



(1) 360°

(2) 320°

(3) 280°

(4) 220°

11. The average mass of Andrew and Charlie was 70kg. When Bob joined them, the average mass of the 3 men was 74kg. What was Bob's mass?

(1) 66 kg

(2) 72 kg

(3) 78 kg

(4) 82 kg

12. Wanxin had some pencils. She gave $\frac{1}{2}$ of them to Kim and $\frac{3}{10}$ of the remainder to Karen. She had 14 pencils left. How many pencils had Wanxin at first?

(1) 20

(2) 35

(3) 40

(4) 70

13. The ratio of the number of cupcakes to the number of tarts in a bakery was 4 : 3. When 25 cupcakes were sold, the ratio of the number of cupcakes to the number of tarts became 7 : 9. How many cupcakes were in the bakery in the end?

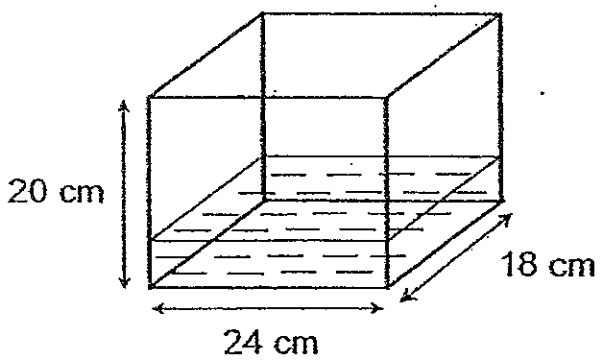
(1) 35

(2) 45

(3) 60

(4) 80

14. The figure below shows a container not drawn to scale. The container measures 24 cm by 18 cm by 20 cm and is $\frac{1}{4}$ filled with water. How much more water is needed to fill up to $\frac{5}{8}$ of the container?



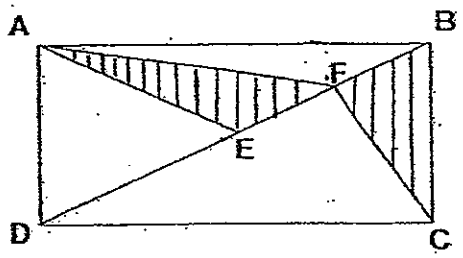
(1) 2160 cm^3

(2) 3240 cm^3

(3) 5400 cm^3

(4) 8640 cm^3

15. The figure below shows a rectangle ABCD. E is the mid-point of BD and F is the mid-point of BE. Given that the total shaded area is 150 cm^2, find the area of rectangle ABCD.



(1) 300 cm^2

(2) 375 cm^2

(3) 450 cm^2

(4) 600 cm^2

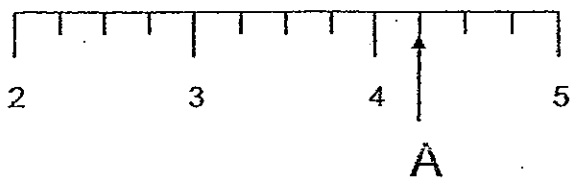
Section B (20 marks)

Questions 16 to 25 carry 1 mark each. Write your answers in the space provided.
For questions which require units, give your answers in the units stated.

16. How many sixths are there in $5\frac{1}{3}$?

Ans: _____

17. What is the mixed number represented by A in the number line below?



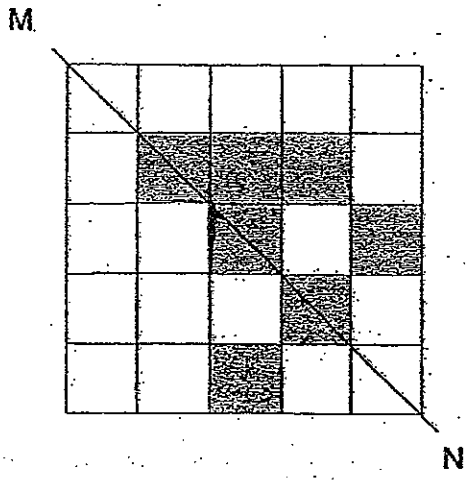
Ans: _____

18. Find the last digit of the sum of 1 to 9.

1 + 2 + ...+ 8 + 9

Ans: _____

19. Shade 2 more squares to complete the figure which has Line MN as the line of symmetry.



20. Each day, Miss Tan starts work at 11.30 a.m. and finishes at 7 p.m. How many hours does she work each day?

Ans: _____ hours

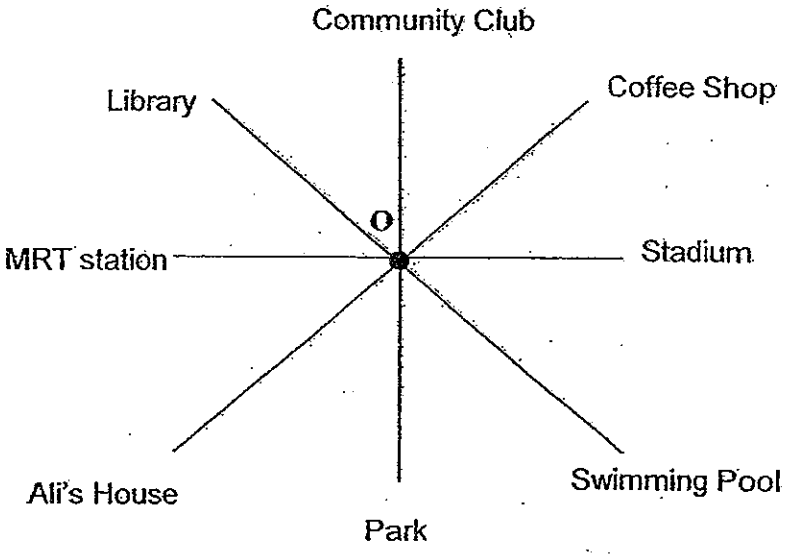
21. Using all the digits 2, 7, 5, 8, 1, form the largest 5-digit even number.

Ans: _____

22. At a bookshop, erasers are sold at 3 boxes for $2. How many boxes of erasers can Ming Yun buy with $10?

Ans: _____ boxes

23. The 8 landmarks below are arranged according to the 8 points of a compass. Ali is standing at the centre marked O. He is facing the Library. Where will Ali face if he turns 135° clockwise?



Ans: _____

24. The ratio of the number of mangoes in box A to the number of mangoes in box B is 2 : 5. The ratio of the number of mangoes in box A to the number of mangoes in box C is 1 : 3. What is the ratio of the number of mangoes in box A to the number of mangoes in box B to the number of mangoes in box C?

Ans: _____

25. Devi has $\frac{2}{5}$ as many stickers as Caili.

Express the number of stickers Caili has as a percentage of the number of stickers Devi has.

Ans: _____ %

Questions 26 to 30 carry 2 marks each. Show your workings 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.

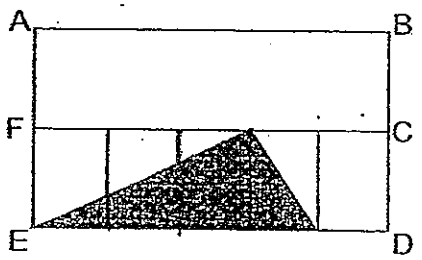
[10 marks]

26. There are some sweets in a bag. The sweets can be packed into packets of 3, 4 or 5 with no leftover. What is the smallest possible number of sweets in the bag?

Ans: _____ sweets

27. The figure below is made up of two identical rectangles ABCF and CDEF. Rectangle CDEF is divided into 5 equal parts.

What percentage of the whole rectangle ABDE is **shaded**?

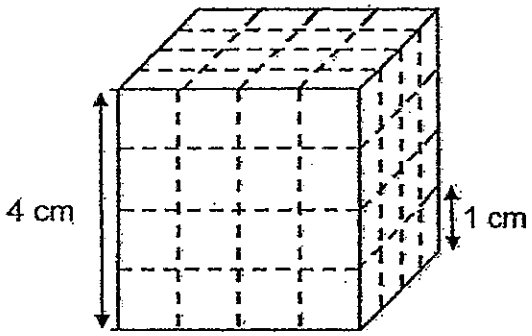


Ans: _____ %

28. $\frac{1}{3}$ of John's money is equal to $\frac{2}{5}$ of Peter's money. Find the ratio of John's money to Peter's money.

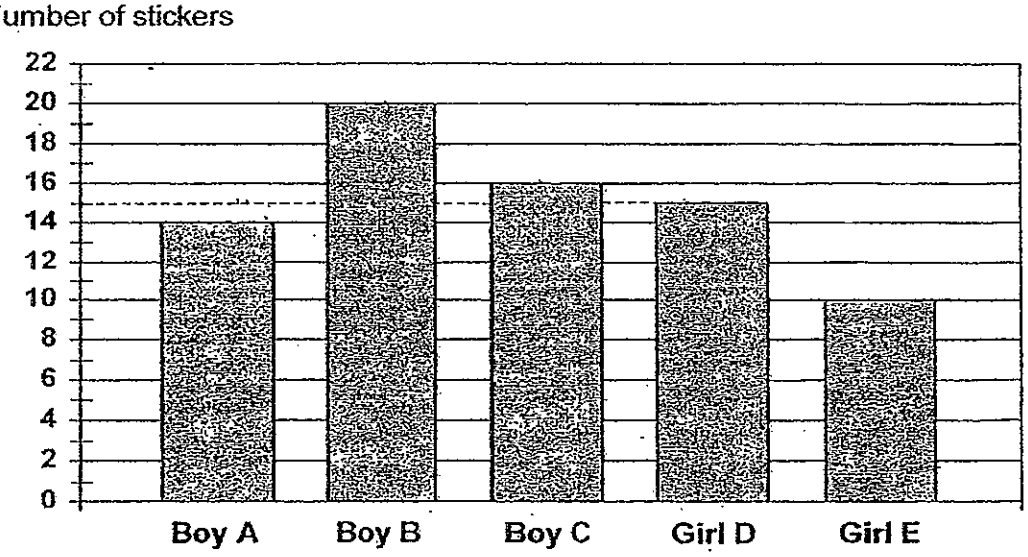
Ans: _____

29. The figure below shows a 4-cm cube. Its 6 faces are painted red. The painted cube is then cut into 1-cm cubes. How many 1-cm cubes have none of its faces painted?



Ans: _____ cubes

30. The bar graph below shows the number of stickers received by 5 different children.



What percentage of the total number of stickers received by the boys is the total number of stickers received by the girls?

Ans: _____ %

End-of-Paper 1

NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2 – 2012
PRIMARY 5

MATHEMATICS

Paper 2

Total Time for Paper 2: 1 hour 40 minutes

INSTRUCTION TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully
4. Answer all questions and show your workings clearly.
5. You are allowed to use a calculator.

Marks Obtained

Total		/ 60

Name : _____( )

Class : _____

Date : 24 October 2012 Parent's Signature :_____

Questions 1 to 5 carry 2 marks each. Show your workings 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. The original price of a T-shirt was \$20. At a sale, it was sold at a 20% discount. Mrs Ng paid \$128 for some of these T-shirts. How many T-shirts did she buy?

Ans: _____ T-shirts

2. Shannon bent a piece of copper wire to form 5 squares of different sizes as shown in Figure 1. The straight line MN was 27 cm long.
Find the length of the piece of copper wire.

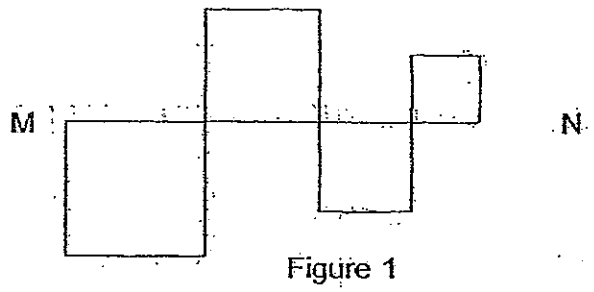


Figure 1

Ans: _____ cm

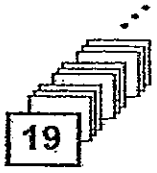
3. 1kg of beef and 1kg of mutton cost $12. Andy bought 1kg of beef and 5kg of mutton for $38. How much does 1kg of mutton cost?

Ans: $_____

4. Davidson has $\frac{2}{3}$ as many marbles as Harvey. If Harvey gives Davidson 20 marbles, they will each have the same number of marbles. How many marbles do the boys have altogether?

Ans: _____ marbles

5. Aileen wants to arrange the number cards in order, from 1 to 400, equally in columns A, B, C, D, E, F, G and H as shown below.



A	B	C	D	E	F	G	H
1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18						

In which column will card 250 be placed?

Ans: Column _____

For questions 6 to 18, show your workings clearly in the space provided for 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]

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6. Eng Huat is given some pocket money. If he spends \$0.80 on each meal, he will have 24 meals. If he spends \$0.60 on each meal instead, how many more meals will he have?

Ans: _____ [3]

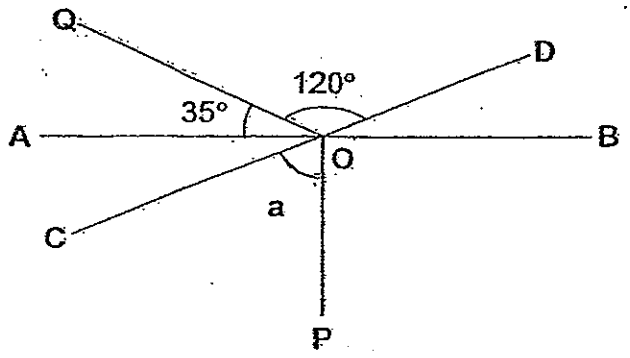
7. The rate of taxi-fare is as follows:

1st kilometre	\$3.20
Every subsequent $\frac{1}{2}$ km or part thereof	\$0.50
From the airport, an additional surcharge per trip	\$3.00

How much will Mr Wong have to pay for a journey of $4\frac{1}{2}$ km if he boards the taxi from the airport?

Ans: _____ [3]

8. In the figure, AB and CD are straight lines that intersect at O.
PO is perpendicular to AB.
If $\angle QOD = 120°$ and $\angle AOQ = 35°$, find $\angle a$.
(The figure is not drawn to scale)



Ans: _____ [3]

9. The usual price of a laptop was $1 600. During the Great Singapore Sale, it was priced at 75% of the usual price and Aini decided to buy it.

(a) Find the discounted price of the laptop.

(b) If Aini paid GST at 7% of the discounted price, how much did she pay for GST?

Ans: (a) _____ [1]

(b) _____ [2]

10. 35 pupils were asked to welcome visitors during the school's anniversary. They were stationed in a row from one end of the school's entrance to the other end at an equal spacing of 1.3 m apart. On the day of the opening ceremony, 8 pupils did not turn up. As a result, the remaining pupils were restationed at a new equal spacing. What was the new spacing between 2 pupils?

Ans: _____[3]

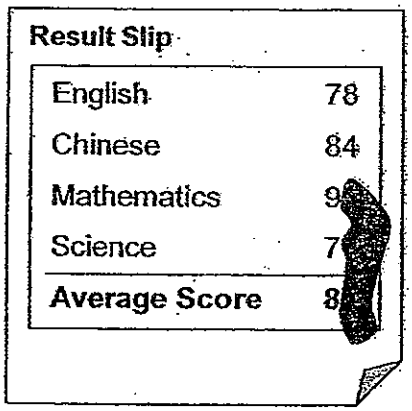
11. The ratio of the number of men to the number of women in an auditorium was 9 : 5 at first. After another 92 women and 12 men entered the auditorium, the number of men is the same as the number of women in the auditorium now. How many men are there in the auditorium now?

Ans: _____[3]

12. Jenny accidentally spilled some ink on her result slip.

(a) If all her subject scores were whole numbers, what could be her highest possible average score?

(b) If her actual average score was 81 and her Mathematics score was 92, what was her Science score?



Result Slip

English	78
Chinese	84
Mathematics	9[illegible]
Science	7[illegible]
Average Score	8[illegible]

Ans: (a) _____ [2]

(b) _____ [2]

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13. On Friday, a factory produced 5 100 cameras. 20% of them were red while the rest were blue. On Saturday, it produced only red cameras. At the end of both days, 40% of all the cameras produced were red cameras.

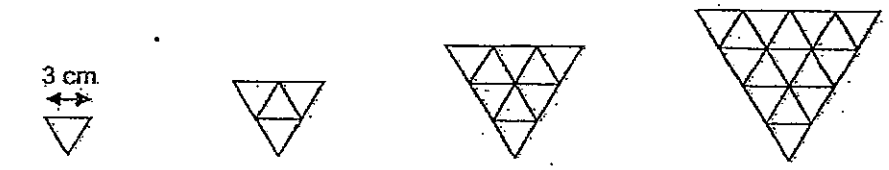
(a) How many red cameras did the factory produce on Friday?

(b) How many more blue cameras than red cameras were produced by the factory at the end of both days?

Ans: (a) _____ [2]

(b) _____ [2]

14. The following patterns are formed with equilateral triangles. Each equilateral triangle is formed using 3 identical 3-cm sticks as shown below.



Pattern 1 Pattern 2 Pattern 3 Pattern 4

(a) How many sticks are used to form Pattern 5?
(b) In which pattern will the length of one side of the triangle measure 60 cm?
(c) How many sticks are used to form the pattern that has a perimeter of 63 cm?

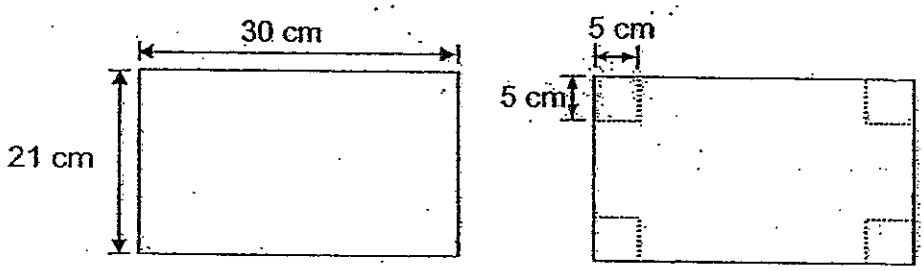
Pattern	Number of sticks used	Length of one side (cm)	Perimeter (cm)
1	3	3	9
2	9	6	18
3	18	9	27
4	30	12	36
5	(a) ?	15	45

Ans: (a) _____ [1]

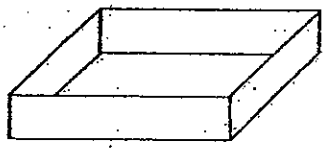
(b) _____ [1]

(c) _____ [2]

15. Mr Fajar had a piece of paper measuring 30 cm by 21 cm. He cut out a square of side 5 cm at each of the 4 corners as shown.



Mr Fajar then folded the sides up, taping the corners to form an open box as shown below.



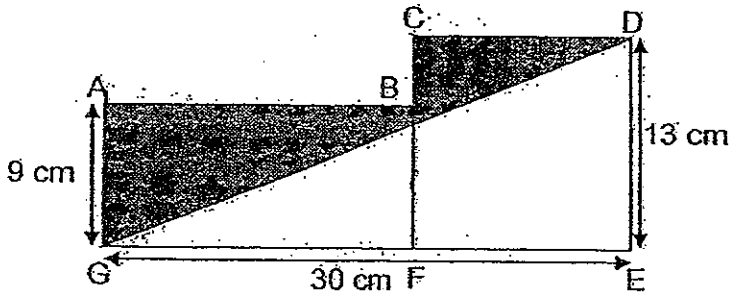
(a) Find the volume of the box.

(b) Find the **maximum** number of 2-cm cubes that can fit into the box when it is covered with a lid.

Ans: (a) _____ [3]

(b) _____ [2]

16. The figure below is not drawn to scale. ABFG is a rectangle and CDEF is a square. Find the total shaded area.



Ans: _____[5]

17. Joanne and Linda exchanged beads with each other. At first, Joanne gave $\frac{1}{4}$ of what she had to Linda. Then, Linda gave 208 beads to Joanne. Next, Joanne gave 400 beads to Linda. In the end, Joanne had 600 beads and Linda had 720 beads. How many beads did Joanne have at first?

Ans: _____ [5]

18. Matt had three boxes, A, B and C, containing a total of 1 512 stamps. The ratio of the number of stamps in Box A to the total number of stamps was 2 : 7. Matt sold 190 stamps from Box B and $\frac{1}{4}$ of the stamps in Box C.

The ratio of the number of stamps left in Box B to the number of stamps left in Box C was 2 : 1.
How many stamps were there in Box B at first?

Ans: _____ [5]

THE END

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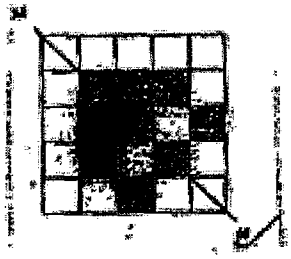
Answer Ke

SCHOOL : NAN HUA
SUBJECT : PRIMARY 5 MATHEMATICS

TERM : SA2

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

16)32 17)4¼ 18)5 19)  20)7.5 hours

21)87512 22)15 23)stadium

24)2 : 5 : 6 25)250%

26)60 27)20% 28)6 : 5

29)8 cubes 30)50%

Paper 2

1)20÷10 = 2
2 x 2 = 4
20 − 4 = 16
128÷16 = 8

2)27cm x 4 = 108cm

3)$38 − $12 = $26
$26÷4 = $6.50

4)1u→20
10u→200

5)250÷8 = 31 R2
Column : B

6)$0.80 x 24 = $19.20
$19.20÷$0.60 = $32
32 – 24 = 8 more meals

7)4½km – 1km = 3½km
3½km÷ ½km = 7
7 x $0.50 = $3.50
$3.20 + $3.50 + $3 = $9.70

8)∠DOB→180° – 120° – 35° = 25°
∠AOC→25°
∠AOP→90°
∠a→90° – 25° = 65°

9)a)1600÷100 = 16
16 x 75 = $1200
b)1200÷100 = 12
12 x 7 = $84

10)35 – 1 = 34
34 x 1.3m = 44.2m
35 – 8 – 1 = 26
44.2m÷26 = 1.7m

11)4u→92 – 12 = 80
1u→80/4 = 20
9u→9 x 20 = 180
Men→180 + 12 = 192 men

12)a)78 + 84 + 99 + 79 = 340
340 ÷4 = 85
b)81 x 4 = 324
324 – 78 – 84 – 92 = 70

13)5100÷10 = 510
510 x 2 = 1020
510 x 8 = 4080
4080÷6 = 680
680 x 4 = 2720
4080 – 2720 = 1360
a)1020
b)1360

14)a)30 + 15 = 45
b)60cm ÷ 3cm = 20
c)63cm ÷ 9cm = 7
7 x 3 + 63 = 84 sticks

15)a)30cm – 5cm x 2 = 20cm
21cm – 5cm = 11cm
20cm x 11cm x 5cm = 1100cm^3
b)20cm ÷ 2cm = 10
11cm ÷ 2cm = 5 R 1cm
5cm ÷ 2cm = 2 R 1cm
10 X 5 x 2 = 100 cubes

16)30 – 13 = 17
½ x 13 x 30 = 195
13 x 13 = 169
17 x 9 = 153
153 + 169 = 322
322 – 195 = 127cm^2

17)600 = 400 = 1000
720 – 400 = 320
320 + 208 = 528
1000 – 208 = 792
792 ÷ 3 = 264
264 x 4 = 1056

J	L
- ¼ of J	+ ¼ J
+ 208	- 208
- 400	+400
600	720

18)1512 ÷ 7 = 216
216 x 2 = 432
1512 – 432 = 1080
1080 – 190 = 890
890 ÷ 10 = 89
89 x 6 = 534
534 + 190 = 724