



NAN HUA PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 2 – 2011  
PRIMARY 5

MATHEMATICS

Paper 1

Section A: 15 Multiple Choice Questions ( 20 marks )

Section B: 10 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 : 21 October 2011

Parent's Signature: \_\_\_\_\_

**Section A (20 marks)**

Questions 1 to 10 carry 1 mark each.

Questions 11 to 15 carry 2 marks each.

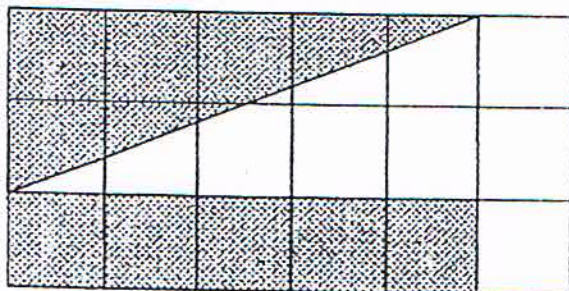
For each question, four options are given. One of them is the correct answer.

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. 8 thousands + 9 hundreds + 3 tenths + 4 hundredths is \_\_\_\_\_.  
What is the missing value in the blank?  
  
  - (1) 8934
  - (2) 890.34
  - (3) 8900.34
  - (4) 8900.034
  
2. A condominium costs about \$760 000 when rounded off to the nearest ten thousand. Which of the following could have been its exact price?  
  
  - (1) \$706 700
  - (2) \$754 900
  - (3) \$764 000
  - (4) \$768 000
  
3. Find the sum of the even factors of 68.  
  
  - (1) 18
  - (2) 40
  - (3) 108
  - (4) 126

4. The rectangle is made up of identical squares. What fraction of the rectangle is unshaded?



- (1)  $\frac{7}{18}$
- (2)  $\frac{4}{9}$
- (3)  $\frac{1}{2}$
- (4)  $\frac{5}{9}$
5. Find the value of  $508 + 98 \div 2 - 24 \times 3$ .
- (1) 231
- (2) 485
- (3) 638
- (4) 837

6. Express 78% as a decimal.

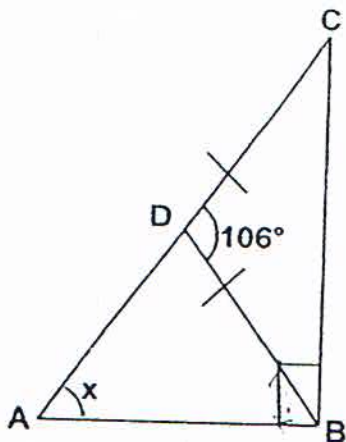
(1) 0.078

(2) 0.78

(3) 7.8

(4) 78.0

7. In triangle ABC below, given  $\angle CDB$  is  $106^\circ$ , find the value of  $\angle x$ .  
(The figure is not drawn to scale.)



(1)  $37^\circ$

(2)  $53^\circ$

(3)  $74^\circ$

(4)  $87^\circ$

8.  $\frac{4}{5} = \underline{\hspace{2cm}} : 40$

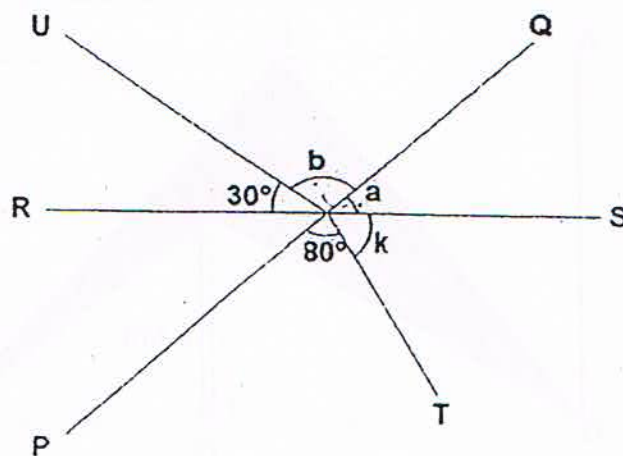
(1) 16

(2) 25

(3) 32

(4) 50

9. In the figure below,  $\angle a$  is  $\frac{1}{2}$  of  $\angle b$ . Lines PQ and RS are straight lines. Find the value of  $\angle k$ . (The figure is not drawn to scale.)



(1)  $25^\circ$

(2)  $30^\circ$

(3)  $40^\circ$

(4)  $50^\circ$

10. Ben and Dominic share some money. If Ben gives  $\frac{1}{3}$  of his share to Dominic, Dominic will have twice as much money as Ben. Find the ratio of Dominic's share to Ben's share at first.

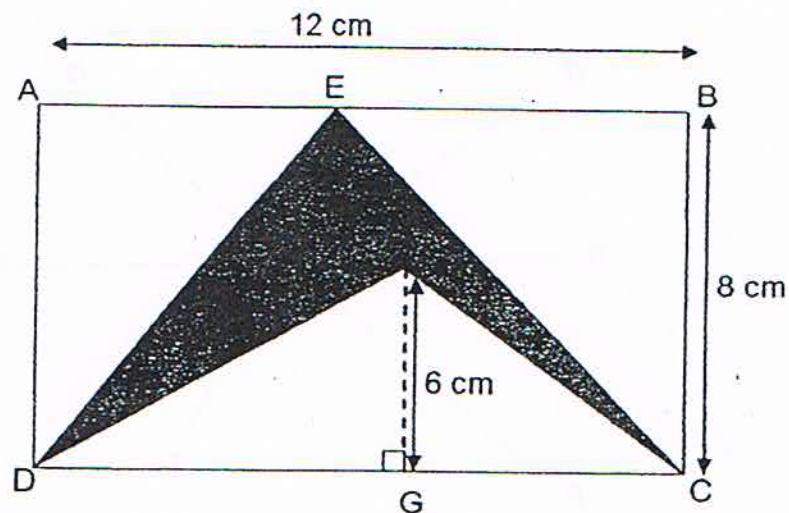
(1) 2 : 1

(2) 1 : 3

(3) 4 : 3

(4) 1 : 1

11. In the figure given below, ABCD is a rectangle. Given line FG is 6 cm. Find the shaded area.



(1) 12 cm<sup>2</sup>

(2) 36 cm<sup>2</sup>

(3) 48 cm<sup>2</sup>

(4) 96 cm<sup>2</sup>

12. The average of two numbers is 40. If one number is thrice of the other, find the bigger number.

(1) 10

(2) 20

(3) 30

(4) 60

13. A rectangular container measures 25 cm by 18 cm by 15 cm. What is the maximum number of 3-cm cubes that can be put into it?

(1) 240

(2) 250

(3) 800

(4) 2250

14. There are same number of people in the hall as well as in the library.  $\frac{1}{4}$  of the people in the hall and  $\frac{3}{8}$  of the people in the library wear glasses. If 20 people in the library do not wear glasses, how many people in the hall and the library wear glasses?

(1) 16

(2) 20

(3) 32

(4) 44

15. Paul and Tom have some twenty-cent coins in the ratio 3 : 8.  
Given that Tom has \$5 more than Paul, how many twenty-cent coins does Paul have?

(1) 15

(2) 16

(3) 25

(4) 40

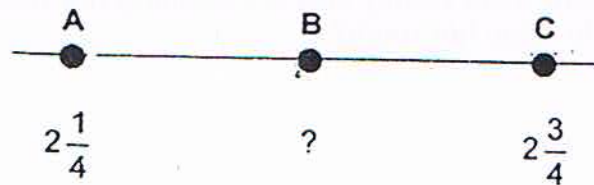
**Section B (20 marks)**

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. Find the sum of 16 tens and 36 hundredths.

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

17. In the number line below A represents  $2\frac{1}{4}$ , C represents  $2\frac{3}{4}$  and  $AB = BC$ . What number is represented by B? Express your answer in decimal.



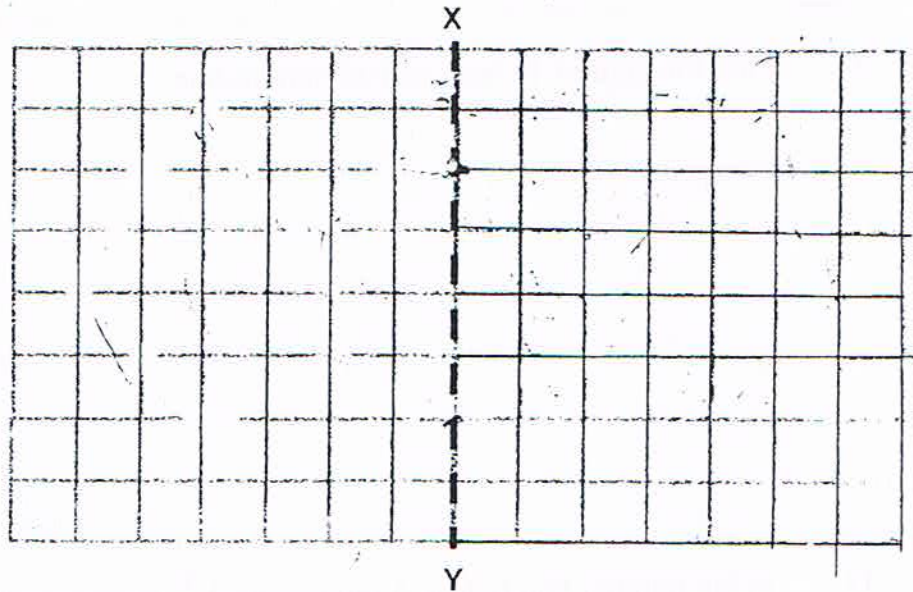
Ans: \_\_\_\_\_

18. In the number pattern given below, what is the 50<sup>th</sup> number?

4 6 3 9 4 6 3 9 4 6 3 9 4 6 3 ...

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

19. Complete the symmetric figure with XY as a line of symmetry.



20. Joyce and Nancy started cleaning their rooms at 0845. Joyce took 2 h 15 min to clean her room while Nancy finished cleaning her room at 1110. Who took a shorter time to clean her room?

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

21. Arrange the following in descending order.

$$\frac{1}{2}, \frac{2}{3}, 0.9, \frac{2}{5}$$

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

22.  $\frac{2}{3}$  of the people at a fun fair are children. If  $\frac{2}{3}$  of the adults are women, find the ratio of the men to children.

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

23. Lisa is facing east. If she wants to face north-west by turning by the smallest angle, in which direction, clockwise or anti-clockwise, and at what angle must she turn?



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

Angle \_\_\_\_\_°

24. 2500 soldiers were sent out on a mission. Each army truck could carry a maximum of 55 soldiers. How many army trucks were needed to carry all 2500 soldiers?

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

25. 2% of the pupils in a class were absent. Of those present,  $\frac{5}{7}$  passed the test. The rest failed. What percentage of the whole class failed the test?

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

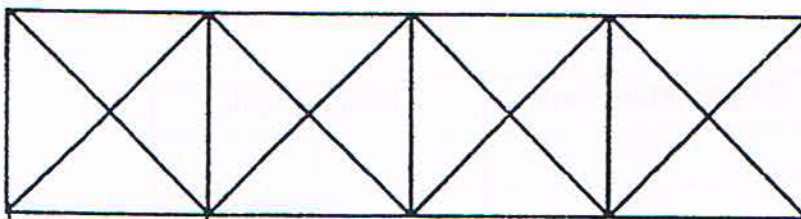
Questions 26 to 30 carry 2 marks each. Show your workings clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

[10 marks]

26. Adrian wanted to pack a box of marbles into some plastic bags. If he put 4 marbles into each bag, he would have 3 marbles left. If he put 5 marbles into each bag, he would be short of 3 marbles. How many marbles did he have in the box?

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

27. The figure below is made up of 16 identical triangles. How many such triangles will make up 37.5% of the entire figure?



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

28. Peter bought a gold ring as shown in the advertisement below. If he had to pay GST of 7% after the discount, how much did he pay for the ring?



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

29. The total surface area of a cube is  $294 \text{ cm}^2$ . What is the length of each side of the cube?

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

30. The table below shows the number of foreign and Singaporean pupils in a class.

	Singaporean Pupils	Foreign Pupils
Girls	15	1
Boys	22	2

What percentage of the class are Singaporean pupils? Give your answer correct to the nearest 1%.

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



NAN HUA PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 2 – 2011  
PRIMARY 5

MATHEMATICS

Paper 2

Total Time for Paper 2: 1 hour 40 minutes

5 Short Answer Questions (10 marks)

13 Structured / Long Answer Questions (50 marks)

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
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Name : \_\_\_\_\_ (      )

Class : 5 \_\_\_\_\_

Date : 21 October 2011

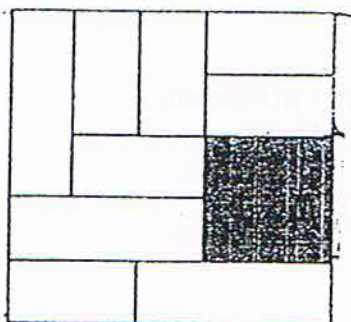
Parent's Signature : \_\_\_\_\_

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]

1. A quarter of Jovern's mass is twice that of Evelyn's mass. Find the ratio of Evelyn's mass to Jovern's mass.

Answer: \_\_\_\_\_

2. The grey square in the figure below has an area of  $36 \text{ cm}^2$ . What is the length of the figure?



Answer: \_\_\_\_\_ cm

3. A group of children wanted to share the cost of a present for their teacher. After one more child joined in, the cost per child was reduced by \$1 to \$10. What was the original number of children?

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

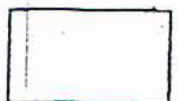


4. Mrs Leong had some stickers. She gave half of what she had to her daughter and son. Her daughter received  $\frac{1}{3}$  of what her son received. What fraction of the total number of stickers did her son get?

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

5. Jeryl and Shawn had an equal amount of money.  
Each day, Jeryl spent \$14 and Shawn spent \$20.  
When Shawn used up all his money, Jeryl still had \$120 left.  
In how many days did Shawn use up all his money?

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



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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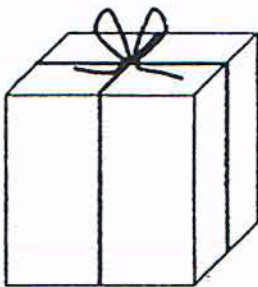
6. 36 scouts were told to line up in a row along one side of the square-shaped Assembly Ground from corner to corner at an equal spacing of 1.2 m apart to play a game.

Just before the game, 7 of them had to leave and help their teacher with some chores. As a result, the remaining scouts had to line up along the same side of the Assembly Ground at a new equal spacing.

What was the new spacing between 2 scouts?

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

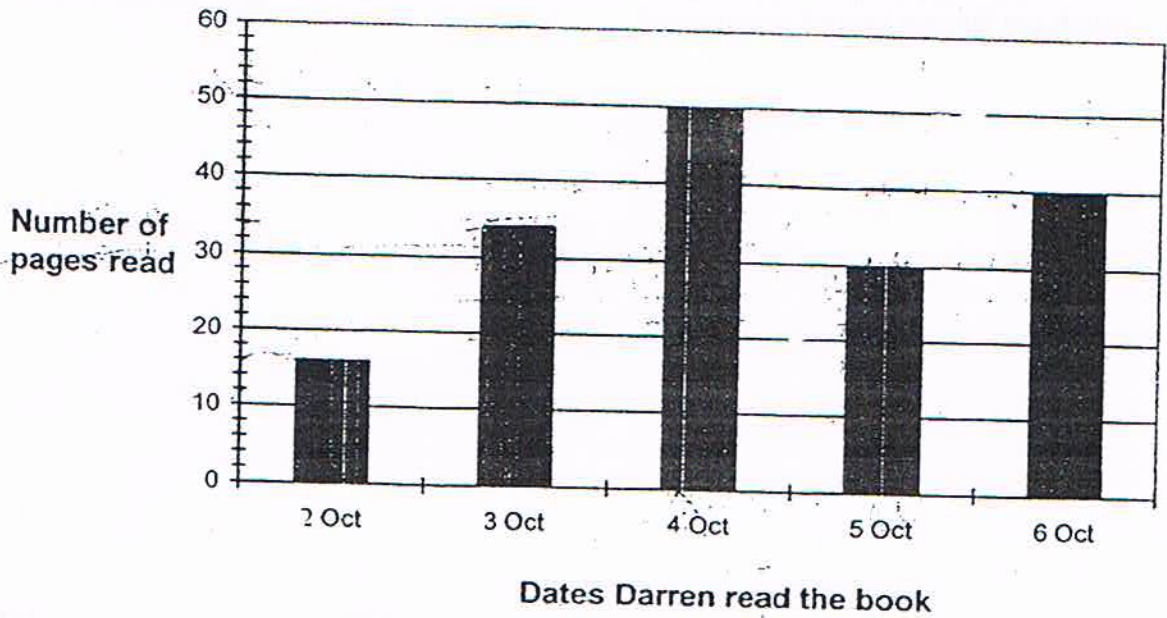
7. Rena used a string of length 1 m 4 cm to tie a cube with a bow, as shown below. If 16 cm of the string was used to tie the bow, find the volume of the cube.



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



8. The number of pages in a novel that Darren read over the last five days is given in the line chart below:



There are 260 pages in the novel. After 6 October, Darren continued reading at a rate that is equal to the average reading rate of the past 5 days. When will he finish reading the novel?

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



9. Renee spent some money on 9 markers. She spent the same amount of money on another 12 pencils. Each marker cost 25 cents more than each pencil. How much did Renee spend altogether?

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

10. 8 friends rented four carnival stalls from 3 p.m. to 9.40 p.m. and took turns to man them. At any time, 4 of them manned the stalls while the other 4 friends rested. If each of them spent the same amount of time manning the stall, how much time did each friend spend manning the stall?

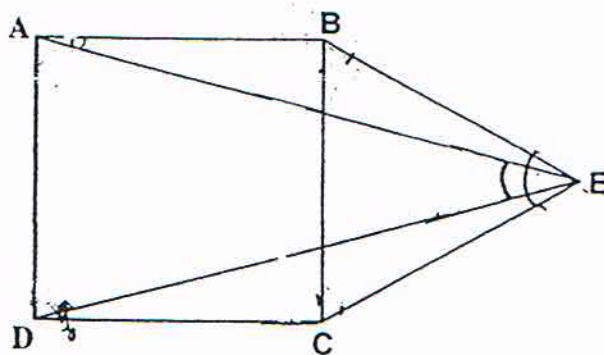
Answer: \_\_\_\_\_ [3]



11. The ratio of the number of children to the number of adults at a party was  $2 : 5$ . After 35 children and 35 adults joined the party, the ratio of the number of children to the adults became  $3 : 4$ . How many children were there at first?

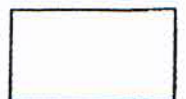
Answer: \_\_\_\_\_ [3]

12. In the figure below, ABCD is a square and BEC is an equilateral triangle. Find (a)  $\angle EDA$   
(b)  $\angle AED$



Ans : a) \_\_\_\_\_ [3m]

b) \_\_\_\_\_ [1m]



13. Hannah collected \$6720 from the sale of some dresses and blouses. The ratio of the price of a dress to the price of a blouse was 5 : 1. Each blouse cost \$5. Given that the total number of blouses sold made up 20% of the total number of dresses and blouses sold, how many dresses were sold by Hannah?

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

14. Study the following patterns carefully. They are made up of stars and rectangles.



Pattern 1



Pattern 2

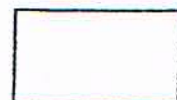


Pattern 3

- (a) What is the total number of rectangles in Pattern 99?  
 (b) If a pattern has a total of 211 shapes, how many stars are there?

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

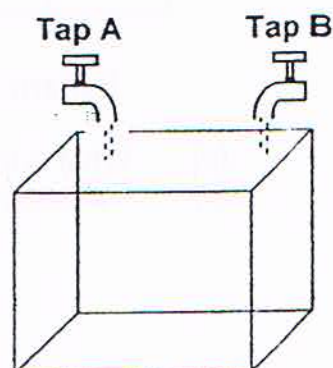
b) \_\_\_\_\_ [2]



15. The figure below shows Tap A, Tap B and an empty tank with a capacity of 96.8 litres. Water flows from Tap A at 6.4 litres per minute and from Tap B at 5.6 litres per minute.

Tap A was turned on first. Tap B was turned on 2 minutes later. The taps were turned off at the same time when the tank was completely full without overflowing.

How much water flowed from Tap B?



Ans: \_\_\_\_\_ [5]

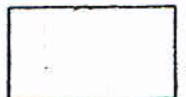


16. At a book sale, books were sold at 60% discount. Kenneth wanted to buy 25 books but was short of \$60. After borrowing \$16 from his brother, he bought 20 books instead.

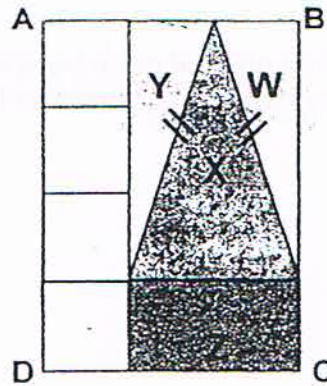
- (a) What was the usual price of each book?  
(b) How much money did Kenneth have at first?

Ans: a) \_\_\_\_\_ [3]

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



17. In the figure ABCD below, not drawn to scale, the area of each of the 5 similar squares is half of Area Z. Area Y is 300 m<sup>2</sup>.



- (a) What is the area of the figure ABCD?
- (b) Two men took 10 minutes to paint Area X. Assuming that the men worked at the same speed, how long will it take for 6 men to complete painting the rest of the figure ABCD?

Ans: a) \_\_\_\_\_

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



18. A bus broke down and the passengers in the bus had to get onto other buses to continue with their journeys.  $\frac{1}{4}$  of the passengers tried to board the first bus that came but 4 of them did not manage to do so. When the second bus came,  $\frac{1}{2}$  of the remaining passengers tried to board it but 6 of them did not manage to do so. When the third bus came,  $\frac{3}{4}$  of the passengers left waiting there managed to board it. There were still 8 passengers left waiting for the next bus to take them. How many passengers were in the bus that broke down?

Ans: \_\_\_\_\_ [5]

THE END





# Answer Ke

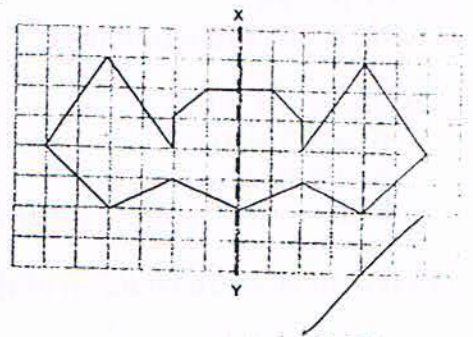
## EXAM PAPER 2011

SCHOOL : NAN HUA  
SUBJECT : PRIMARY 5 MATHEAMATICS

TERM : SA2

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

- 16)160.36      17)2.5      18)6      19)
- 20)Joyce      21)0.9,  $\frac{2}{3}$ ,  $\frac{1}{2}$ ,  $\frac{2}{5}$       22)1:6
- 23)anti-clockwise      24)46 trucks      25)28%
- 26)27 marbles      27)6 triangles      28)\$321
- 29)49cm      30)93%



### Paper 2

1)The ratio of Evelyn's mass to Jovern's mass is 1 : 8

2) $36 = 6 \times 6$   
 $6 \div 2 = 3$   
 $5 \times 3 = 15$   
The length of the figure is 15cm

3) $10 \div 1 = 10$   
There were 10 children at first

4)Mrs Leong got  $\frac{3}{8}$  of the total number of stickers

5) $20 - 14 = 6$   
 $120 \div 6 = 20$   
Shawn used up all his money in 20 days

6) $36 - 1 = 35$   
 $35 \times 1.2 = 42$   
 $36 - 7 = 29$   
 $29 - 1 = 28$   
 $42 \div 28 = 1.5$   
The new spacing between 2 scouts is 1.5m

7)  $104 - 16 = 88$

$88 \div 8 = 11$

$11 \times 11 \times 11 = 1331$

The volume of the cube is  $1331\text{cm}^3$

8)  $16 + 34 + 50 + 30 + 40 = 170$

$170 \div 5 = 34$

$260 - 170 = 90$

$90 \div 34 \approx 3$

He will finish reading the novel on 9 October

9)  $9 \times 0.25 = 2.25$

$2.25 \div 3 = 0.75$

$0.75 + 0.25 = 1$

$0.75 \times 12 = 9$

$1 \times 9 = 9$

$9 + 9 = 18$

She spent \$18 altogether

10)  $940/80 - 3 = 62/3$

$62/3 \div 2 = 31/3$

$31/3 \rightarrow 3\text{h } 20\text{ min}$

Each friend spent 3h 20min manning the stall

11) There were 10 children of first

12) a)  $90^\circ + 60^\circ = 150^\circ$

$180^\circ - 150^\circ = 30^\circ$

$30^\circ \div 2 = 15^\circ$

$90^\circ - 15^\circ = 75^\circ$

$\angle EDA$  is  $75^\circ$

b)  $60^\circ - 15^\circ - 15^\circ = 30^\circ$

$\angle AED$  is  $30^\circ$

13)  $5 + (25 \times 4) = 105$

$6720 \div 105 = 64$

$4 \times 64 = 256$

Hannah sold 256 dresses

14) a)  $99 \times 2 = 198$

The total number of rectangles in Pattern 99 is 198

b) There are 71 stars

15) 39.2L of water flowed from tap B

16) a) 5 book  $\rightarrow 60 - 16 = 44$

1 nook  $\rightarrow 8.80$

$8.80/40 \times 100 = 22$

The usual price of each book is \$22

16)b)  $8.80 \times 20 = 176$   
 $176 - 16 = 160$   
He had \$160 at first

17)a)  $Y \rightarrow 300$   
 $X \rightarrow 300 \times 2 = 600$   
 $W \rightarrow 300$   
6 squares  $\rightarrow 300 + 600 + 300 = 1200$   
1 square  $\rightarrow 200$   
12 square  $\rightarrow 2400$   
The area of figure ABCD is  $2400m^2$   
b)  $2400 - 600 = 1800$   
2 men  $\rightarrow 10min \rightarrow 800m^2$   
2 men  $\rightarrow 30min \rightarrow 1800m^2$   
6 men  $\rightarrow 10min \rightarrow 1800m^2$   
It will take 10min for the 6 men to complete the rest of figure ABCD

18)  $8 \times 4 = 22$   
 $32 - 6 = 26$   
 $26 \times 2 = 52$   
 $52 - 4 = 48$   
 $48 \div 3 = 16$   
 $16 \times 4 = 64$   
There were 64 passengers in the bus that broke down