



**NAN HUA PRIMARY SCHOOL
CONTINUAL ASSESSMENT 1 - 2009
PRIMARY 6**

MATHEMATICS

Paper 1

Section A: 15 Multiple Choice Questions (20 marks)

Section B: 15 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 the calculator for Paper 1.

Marks Obtained

Paper 1		/ 40
Paper 2		/ 60
Total		/ 100

Name : _____ ()

Class : _____

Date : 10 March 2009

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

1. $\frac{5}{6} \div \frac{3}{4}$ is the same as _____.

(1) $\frac{5}{6} + \frac{4}{3}$

(2) $\frac{6}{5} \div \frac{3}{4}$

(3) $\frac{6}{5} \times \frac{3}{4}$

(4) $\frac{5}{6} \times \frac{4}{3}$

2. Express 0.502 as a percentage.

(1) 0.502%

(2) 5.02%

(3) 50.2%

(4) 502%

3. $2\frac{1}{8} = \underline{\hspace{2cm}} : 8$

(1) 3

(2) 11

(3) 17

(4) 21

4. Harold had \$480. He spent \$80 and saved the rest. Find the ratio of the amount of money he saved to the amount of money he spent.

(1) 1 : 6

(2) 6 : 1

(3) 1 : 5

(4) 5 : 1

5. $0.99 \times 100 = \underline{\hspace{2cm}} \div 100$

(1) 0.99

(2) 99

(3) 990

(4) 9900

6. How many $\frac{3}{4}$ kg packets of flour make up a total of 12kg?

(1) 16

(2) $12\frac{3}{4}$

(3) 9

(4) $\frac{1}{16}$

7. A glass is $\frac{1}{4}$ full of milk. The milk is then poured into an empty jug which has a volume twice that of the glass. What fraction of the jug is filled with milk?

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

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

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

(4) $\frac{1}{8}$

8. 150% of a number is 600. What is the number?

(1) 25

(2) 200

(3) 400

(4) 900

9. Angel has thrice as many marbles as Bradley. Charmaine has 4 times as many marbles as Angel. What is the ratio of the number of marbles Bradley has to the number of marbles Charmaine has?

(1) 1:4

(2) 1:8

(3) 1:12

(4) 1:15

10. The figure below is made up of 7 identical rectangles of length 30 cm each. What is the perimeter of the figure?

- (1) 210 cm
- (2) 250 cm
- (3) 260 cm
- (4) 290 cm

11. $2\frac{1}{4} = \frac{1}{4} + \frac{1}{4} + \square$

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

12. Jane baked a pie. She ate $\frac{1}{2}$ of it and cut the rest into 6 equal pieces. She gave 1 piece to her sister and kept the rest for her parents. What fraction of the pie did she keep for her parents?

- (1) $\frac{1}{12}$
- (2) $\frac{1}{3}$
- (3) $\frac{5}{12}$
- (4) $\frac{5}{6}$

13. At Cleo's birthday party, there were 90 children. There were 10 more girls than boys, express the number of boys as a percentage of the number of girls.

- (1) 45.5 %
- (2) 55.5 %
- (3) 80 %
- (4) 125 %

14. The figure below is made up of 1 triangle overlapping 2 similar rectangles. Find the ratio of the area of the triangle to the area of the 2 rectangles.



- (1) 1:1
- (2) 1:2
- (3) 1:3
- ~~(4)~~ 1:4
- (4)

15. The total cost of 12 textbooks and workbooks is \$300. $\frac{3}{4}$ of the books are textbooks and the remaining books are workbooks. The ratio of the cost of a textbook to the cost of a workbook is 3:1. Find the price of a workbook.

- (1) 10
- (2) 30
- (3) 90
- (4) 100

Section B (20 marks)

Questions 16 to 25 carry 1 mark each. Questions 26 to 30 carry 2 marks each. For each question from 26 to 30, show your workings clearly in the space below it and write your answer in the space provided. Give your answers in the units stated.

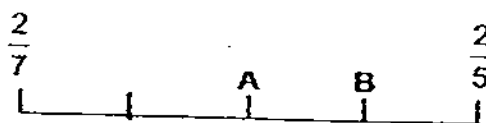
16. Express $5\frac{7}{1000}$ as a decimal.

Ans: _____

17. A rope is cut into three pieces in the ratio 5 : 4 : 1. The longest piece is 36m longer than the shortest piece. Find the length of the rope.

Ans: _____ m

18. Look at the number line below.



A is midway of $\frac{2}{7}$ and $\frac{2}{5}$. B is midway of A and $\frac{2}{5}$. What is the value of B?

Ans: _____

19. The average of 4 numbers is 25. When a number is added, the average becomes 30. What is the value of the number added?

Ans: _____

20. For every dollar Ariel has, Benny has \$5.
For every dollar Benny has, Clara has \$3.
What is the ratio of Ariel's money to Benny's money to Clara's money?

Ans : ____ : ____ : ____

21. The ratio of Valerie's pens to Gail's pens is 4:7. Gail has 12 pens more than Valerie. How many pens do they have in all?

Ans : _____ pens

22. For every $\frac{1}{2}$ of the surface area of the walls in a room that Amanda paints, Kelly paints $\frac{1}{4}$ of it. What fraction of the wall will Kelly paint if Amanda paints $\frac{1}{7}$ of it?

Ans: _____

23. After using 40% of the rice, Kenric gave 33 kg of rice to Maria. How many kilograms of rice did he use if he had 49% of the rice left?

Ans : _____ kg

24. Grace bought some beads. She gave away 33 of them. Harold gave her the same number of beads as the number of beads she had left. She put all the beads equally into 4 bowls. Each bowl contained 5 beads. How many beads did Harold give her?

Ans: _____ beads

25. A chair cost $\frac{1}{4}$ as much as a table. Mr. Tan bought 2 chairs and a table. He paid \$48 altogether. What was the cost of a chair?

Ans: \$ _____

26. The time from 7 a.m. till now is $\frac{1}{3}$ of the time from now till 3 p.m. What is the time now?

Ans: _____

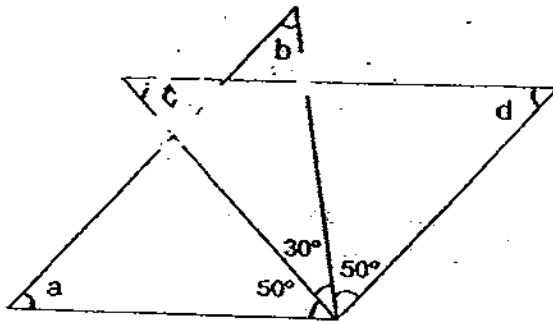
27. Wendy spent $\frac{3}{8}$ of her money to buy a bag. She then spent \$50 on food. The amount she had left was $\frac{1}{2}$ of the original amount. How much did she have at first?

Ans: \$ _____

28. Jermaine received $\frac{1}{4}$ of the sum of money received by her two brothers. If her brothers received an equal amount of the money each, what percentage of the total sum of money did each brother receive?

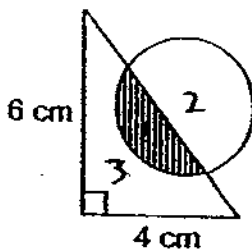
Ans : _____ %

29. The figure below is made up of two triangles which are not drawn to scale. Find the sum of $\angle a$, $\angle b$, $\angle c$ and $\angle d$



Ans : _____ °

30. The figure below is made up of a triangle and a circle. The ratio of the shaded part of the triangle to the unshaded part of the triangle is 1:3. If the ratio of the unshaded part of the circle to the shaded part of the circle is 2:1, find the total area of the figure.



Ans : _____

End-of-Paper 1

Remember to check your work



**NAN HUA PRIMARY SCHOOL
CONTINUAL ASSESSMENT 1 - 2009
PRIMARY 6**

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
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Name : _____ ()

Class : _____

Date : 10 March 2009

Parent's Signature : _____

Paper 2 (60 marks)

Questions 1 to 5 carry 2 marks each. Show your workings clearly in the space below it and write your answer in the space provided. Give your answers in the units stated.

1. Janice had thrice as many apples as mangoes. After selling 135 apples, she had only half as many apples as mangoes left. How many apples had she left?

Ans: _____ apples

2. Palm trees are planted $\frac{1}{8}$ km apart along a straight road which measures $\frac{3}{4}$ km. How many palm trees are there on the road including the one at the start?

Ans: _____ palm trees

3. In a box, 80% of the beads are red and the rest are green. How many percent more red beads than green beads are there in the box?

Ans: _____ %

4. Kenric takes $\frac{3}{4}$ min to fold a paper plane. How many such paper planes does he fold in $\frac{3}{4}$ h?

Ans: _____ paper planes

5. Diane has 25% more stamps than Eugene. If Diane gives 25 stamps to Eugene, they will have the same number of stamps. How many stamps does Eugene have at first?

Ans: _____ stamps

For each question from 6 to 18, show your workings clearly in the space below it and write your answer in the space provided. The number of marks available is shown in brackets [] at the end of each question or part-question. Remember to include the units wherever possible.

6. $\frac{5}{6}$ m of raffia is cut into shorter pieces. Each of the shorter pieces must measure $\frac{1}{4}$ m.

- a) How many $\frac{1}{4}$ m pieces are there?
- b) What is the length of the remaining piece?

Ans: a) _____ [1]

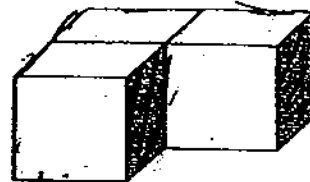
b) _____ [2]

7. The ratio of Jonathan's weekly saving to Galton's weekly saving is 8:5. If Jonathan saves a total of \$288 more than Galton in two weeks, what is Galton's weekly saving? (Assuming that Jonathan saves the same amount each week)

Ans: _____ [3]

8. The solid below is made up of 3 identical cubes.

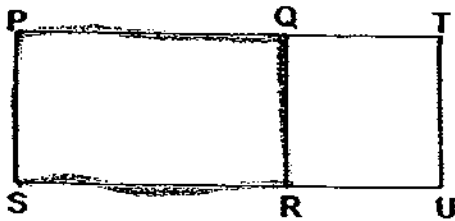
- (a) If the solid has a volume of 648 cm^3 , find the length of each cube.
- (b) Find the total surface area of the solid.



Ans: (a) _____ [1]

(b) _____ [2]

9. The figure below is made up of Rectangle PQRS and Square QTUR. The ratio of the length of the square to the length of the rectangle is 4:7. If the area of Square QTUR is 256 cm^2 , find the area of Rectangle PQRS.



Ans: _____ [3]

10. Brendan has 40% more paperclips than Melvin. If Brendan gives Melvin 32 paperclips, Melvin will have 40% more paperclips than Brendan. How many paperclips has Brendan?

Ans: _____ [3]

11. Kelly and Angel shared a sum of \$1200. After Kelly had spent $\frac{1}{5}$ of her money and Angel spent \$93, they each had the same amount of money left.

How much money did Angel have at first?

Ans: _____ [3]

12. Ali, Baba and Carapa shared a packet of stickers. Ali took half the bag of stickers and 2 stickers. Baba took $\frac{1}{2}$ the remaining packet of stickers and 4 stickers. Carapa took the rest of the stickers. If Carapa received 20 stickers, how many stickers were there in the packet at first?

Ans: _____ [4]

13. Zen always saves 20% of his salary. When his salary is increased by 5%, his savings increases by \$22. How much is his new salary?

Ans: _____ [4]

14. Adrian and Bill shared some stamps in the ratio of 1 : 2. When Bill gave some stamps to Adrian, the ratio of Adrian's stamps to Bill's stamps became 5 : 4.
- a) If Bill had 48 stamps left, how many stamps did they have altogether ?
 - b) How many stamps did Bill give Adrian ?

Ans: (a) _____ [2]

(b) _____ [2]

15. There were some \$2, \$5 and \$100 notes in Jane's wallet. The value of the \$2, \$5 and \$100 was in the ratio 4 : 5 : 3. After spending 50% of her \$100 notes, 100 of her \$2 notes and $\frac{4}{5}$ of her \$5 notes, Jane had \$450 left. Find the total amount of money Jane had in her wallet at first.

Ans: _____ [5]

16. A, B, C and D are four ~~different~~ numbers.
A is 25% of B, C and D.
B is 60% of C.
D is 50% of B and C.
- Find the ratio of A : B : C
 - Express A as a percentage of C.

Ans: (a) _____ [3]

(b) _____ [2]

17. A bookstore sells 3 pens and 2 files for \$8.50. It also sells 4 similar pens and 3 similar files for \$12. Mr Lim spent \$90 to buy a number of these pens and files in the ratio of 2 : 3.
- a) Find the cost of one file.
 - b) How many such files did he buy?

Ans: (a) _____ [2]

(b) _____ [3]

18. Study the pattern below.

Line	Numbers	Sum
1	1	1
2	1 + 3	4
3	1 + 3 + 5	9
4	1 + 3 + 5 + 7	16
5	(a) _____	(b) _____
...		
(c)	...	6400

- a) Write down number sequence for the 5th line in the box above. [1]
 b) Write down the sum of all the numbers in the 5th line in the box above. [1]
 c) Which line has a sum of 6400?

Ans: _____ [1]

- d) The sum of all the numbers on two consecutive lines is 221.
Which are the two lines?

Ans: _____ [2]



ANSWER SHEET

EXAM PAPER 2009

SCHOOL : NAN HUA PRIMARY
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : CA1

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

- 16) 5.007 17) 90m 18) $13/35$ 19) 50 20) 1:5:15
 21) 44 pens 22) $1/14$ 23) 120kg 24) 10 beads 25) \$8
 26) 9 a.m. 27) \$400 28) 40% 29) 200° 30) 18cm^2

Paper 2

1) 27 apples	2) 7 palm trees
3) $60 \times 100\% = 300\%$ 20	4) $\frac{3}{4}h = 45 \text{ min}$ $45 \div \frac{3}{4} = \frac{4}{3} \times 45 = 60$
5) $25\% \div 2 = 12.5\%$ $12.5\% \rightarrow 25$ $25\% \rightarrow 50$ $100\% \rightarrow 200 \text{ stamps.}$	6) a) There are 3 pieces b) $\frac{1}{3} \times \frac{1}{4} = \frac{1}{12}$
7) $\$288 \div 2 = \144 $3u \rightarrow \$144$ $1u \rightarrow \$144 \div 3 = \48 $5u \rightarrow \$48 \times 5 = \240 Galton's weekly saving is \$240.	8) a) 6cm b) 504cm

<p>9) $4u \rightarrow 256\text{cm}_2$ $1u \rightarrow 64\text{cm}$ $7u \rightarrow 64\text{cm} \times 7 = 448\text{cm}_2$ The area of the rectangle is 448cm_2</p>	<p>10) $40\% \rightarrow 32$ $20\% \rightarrow 16$ $140\% \rightarrow 112$ Brendan has 112 paperclips</p>
<p>11) $9u \rightarrow \\$1200 - \\$93 = \\$1107$ $1u \rightarrow \\$1107 \div 9 = \\123 $4u \rightarrow \\$123 \times 4 = \\492 Angel $\rightarrow \\$492 + \\$93 = \\$585$ Angle have \$585 at first.</p>	<p>12) $24 \times 2 = 48$ $48 + 2 = 50$ $50 \times 2 = 100$ There were 100 stickers in the packet at first.</p>
<p>13) $100\% + 5\% = 105\%$ $20/100 \times 105\% = 21\%$ $21\% - 20\% = 1\%$ $1\% = \\$22$ $105\% = \\$2310$</p>	<p>14) a) $4u \rightarrow 48$ $1u \rightarrow 12$ $9u \rightarrow 108$ b) $2u \rightarrow 12 \times 2 = 24$</p>
<p>15) $\\$2 \times 100 = \\200 $13u \rightarrow \\$650$ $1u \rightarrow \\$50$ $24u \rightarrow 1200$</p>	<p>16) a) 3: 3: 5 b) 60%</p>
<p>17) a) 2 b) 30</p>	<p>18) a) $1+3+5+7+9$ b) 25 c) 80 d) 10,11</p>

