



NAN HUA PRIMARY SCHOOL
CONTINUAL ASSESSMENT 1 – 2012
PRIMARY 6

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

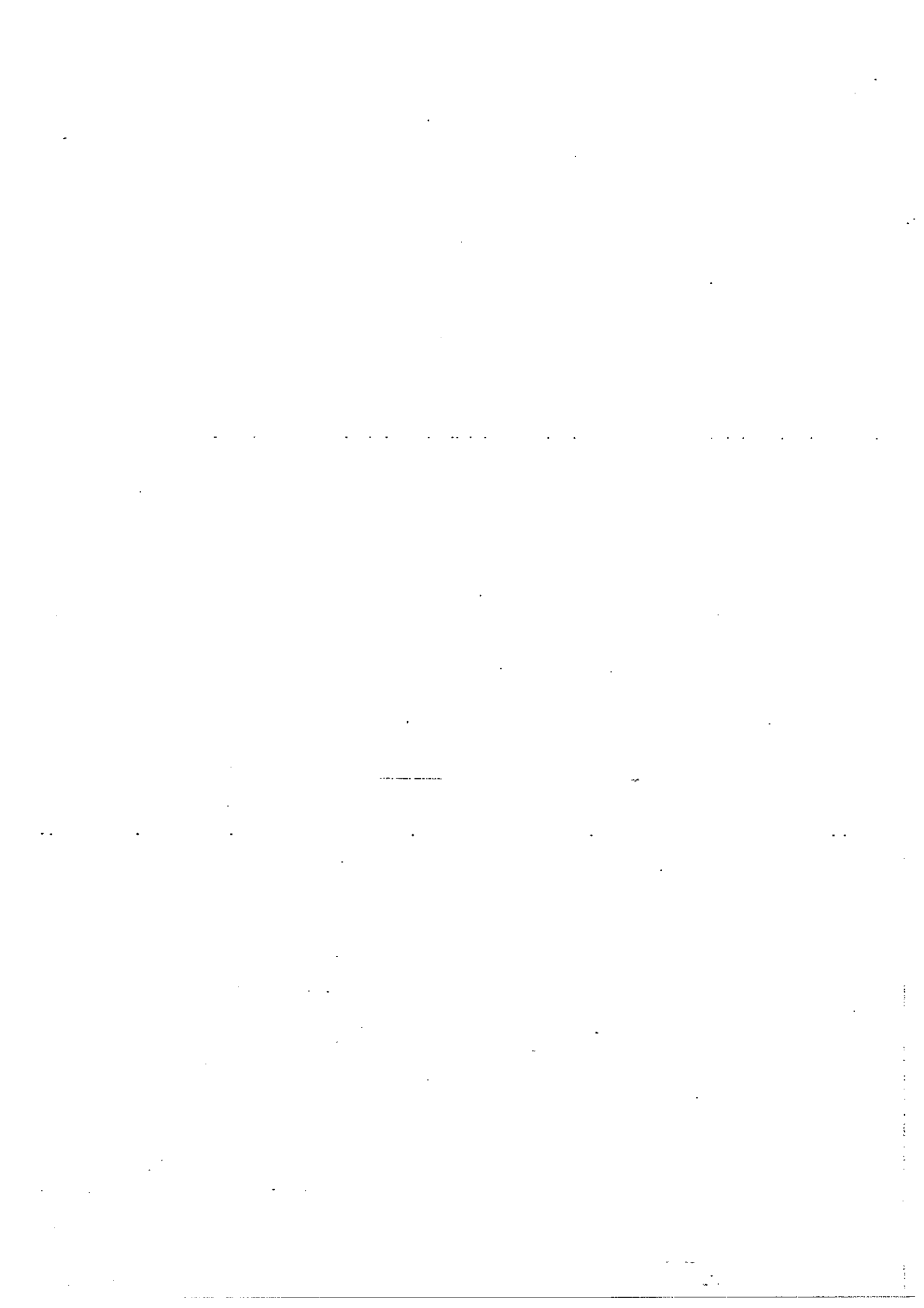
Paper 1	Booklet A		/ 40
	Booklet B		
Paper 2			/ 60
Total			/ 100

Name : _____ ()

Class : 6 _____

Date : 28 Feb 2012

Parent's Signature : _____



Section A (20marks)

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.

1. In 73.098, what is the value of the digit 8?

- (1) 8 tens
- (2) 8 tenths
- (3) 8 hundredths
- (4) 8 thousandths

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2. How many tenths are there in $1\frac{2}{5}$?

- (1) 14
- (2) 12
- (3) 7
- (4) 4

()

3. I spent 15% of my money on a book which cost \$6. How much money did I have at first?

- (1) \$34
- (2) \$40
- (3) \$84
- (4) \$90

()

4. Which one of the following has the same value as $7 + \frac{7}{25}$?

- (1) 7.07
- (2) 7.14
- (3) 7.28
- (4) 7.70

()

5. Simplify $32 - 16 \div 4 \times 2$.

- (1) 8
- (2) 2
- (3) 24
- (4) 30

()

6. Ali has $\frac{2}{7}$ as many marbles as Ben. What is the ratio of Ben's marbles to the total number of marbles that Ali and Ben have?

- (1) 5 : 7
- (2) 7 : 2
- (3) 5 : 9
- (4) 7 : 9

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7. The usual price of a wallet is \$200. It is sold at \$125 at a sale. What is the percentage decrease in the price?

- (1) 37.5%
- (2) 60%
- (3) 62.5%
- (4) 75%

()

8. A baker can bake a cake in $\frac{3}{4}$ h. How many cakes can he bake in 12 h?

- (1) 36
- (2) 16
- (3) 9
- (4) 4

()

9. In a mixture of lemonade, the amount of lemon juice used to the amount of water used is in the ratio 2 : 3. How much lemon juice do I need if I want to make 900 millilitres of lemonade?

- (1) 180 ml
- (2) 300 ml
- (3) 360 ml
- (4) 450 ml

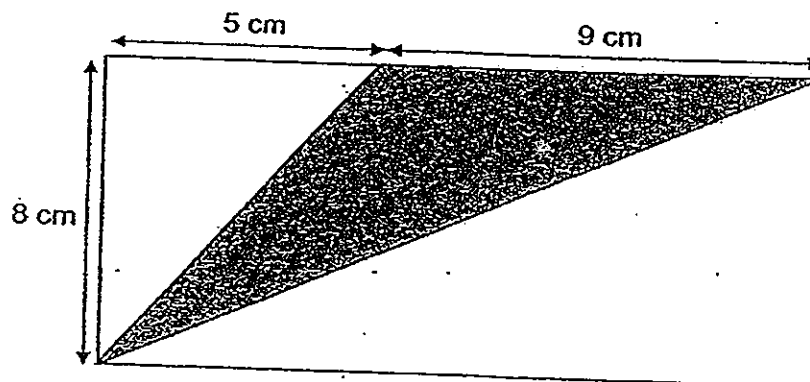
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10. In the sum of $1 + 2 + 3 + \dots + 47 + 48 + 49$, what is the digit in the ones place?

- (1) 0
- (2) 5
- (3) 8
- (4) 9

()

11. In the figure below, what is the area of the shaded triangle?



- (1) 20 cm²
- (2) 36 cm²
- (3) 56 cm²
- (4) 72 cm²

()

12. The length of the 3 sides of a triangle is in the ratio 3 : 4 : 5. If the perimeter of the triangle is 72 cm, what is the difference in length between the longest and the shortest sides of the triangle?

- (1) 6 cm
- (2) 12 cm
- (3) 18 cm
- (4) 24 cm

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13. The average height of 3 boys is 1.6 m. A new boy with height 1.8 m joins the group. What is the average height of the 4 boys?

- (1) 1.2 m
- (2) 1.25 m
- (3) 1.65 m
- (4) 1.7 m

()

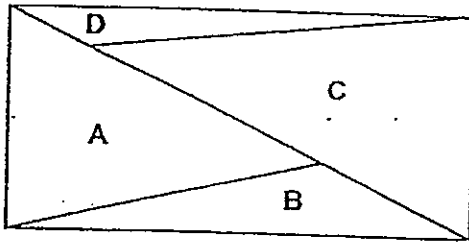
14. The area of a rectangle is $\frac{1}{8} \text{ m}^2$. The length of the rectangle is $\frac{1}{2} \text{ m}$.

What is the perimeter of the rectangle?

- (1) $\frac{1}{4} \text{ m}$
- (2) $\frac{1}{16} \text{ m}$
- (3) $1\frac{1}{8} \text{ m}$
- (4) $1\frac{1}{2} \text{ m}$

()

15. The figure below shows a rectangle divided into four parts A, B, C and D. The ratio of Area A to Area B is 2 : 1. The ratio of Area A to Area D is 4 : 1. What is the ratio of Area B to Area C?



- (1) 1 : 2
- (2) 2 : 3
- (3) 2 : 5
- (4) 3 : 5

()

Section B (20 marks)

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]

16. What is the greatest number of pieces of ribbon $\frac{5}{9}$ m long that can be cut from a 4-metre long ribbon?

Ans : _____

17. The ratio of my savings to the total amount of money that I had is 1 : 4. What percentage of my money did I save?

Ans : _____%

18. $\frac{1}{2}$ of a number is 27. What is $\frac{1}{9}$ of the number?

Ans : _____

19. 20% of Randy's money is equal to 25% of Sally's money. What is the ratio of Randy's money to Sally's money?

Ans : _____

20. The original price of a branded bag is \$800. A 20% discount is given at a sale. How much does the bag cost at the sale?

Ans : \$ _____

Subtotal	15
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21. 6 cups of water can fill $\frac{2}{9}$ of a pail. How many more cups of water are needed to fill the pail to its brim?

Ans : _____

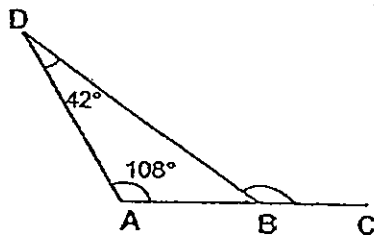
22. In a basket with blue and white balls, 30% of the balls are white. There are 20 more blue balls than white balls. How many balls are there in the basket altogether?

Ans : _____

23. Mrs Foo bought a television set for \$560. This was 80% of the usual price. How much was the discount?

Ans : \$ _____

24. In the figure shown below, ABC is a straight line. Find $\angle CBD$.



Ans : _____°

25. How many times is $\frac{1}{2}$ used repeatedly in the number statement below?

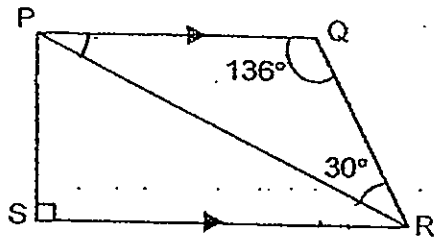
$$\frac{1}{2} \div \frac{1}{2} \div \frac{1}{2} \div \dots \div \frac{1}{2} = 16$$

Ans : _____

Subtotal	15
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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 each questions which require units, give your answers in the units stated. [10 marks]

26. In the figure below, PQRS is a trapezium. Find $\angle SPR$.



Ans : _____°

Do not write
in this space

27. A container measuring 11 cm by 10 cm by 18 cm was completely filled with water. Mrs Lee poured out 1 litre of water from the container. How much water was left in the container?

Ans : _____ cm³

Subtotal	/ 4
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28. In a class of 20 pupils, 40% of them were boys. Some boys joined the class and the percentage of boys became 50%. How many boys joined the class?

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in this space

Ans : _____

29. Peggy has twice as much money as Siew Hua. The amount of money Tina has is 40% of what Siew Hua has. Find the ratio of the amount of money Peggy has to the amount of money Siew Hua has to the amount of money Tina has.

Ans : _____

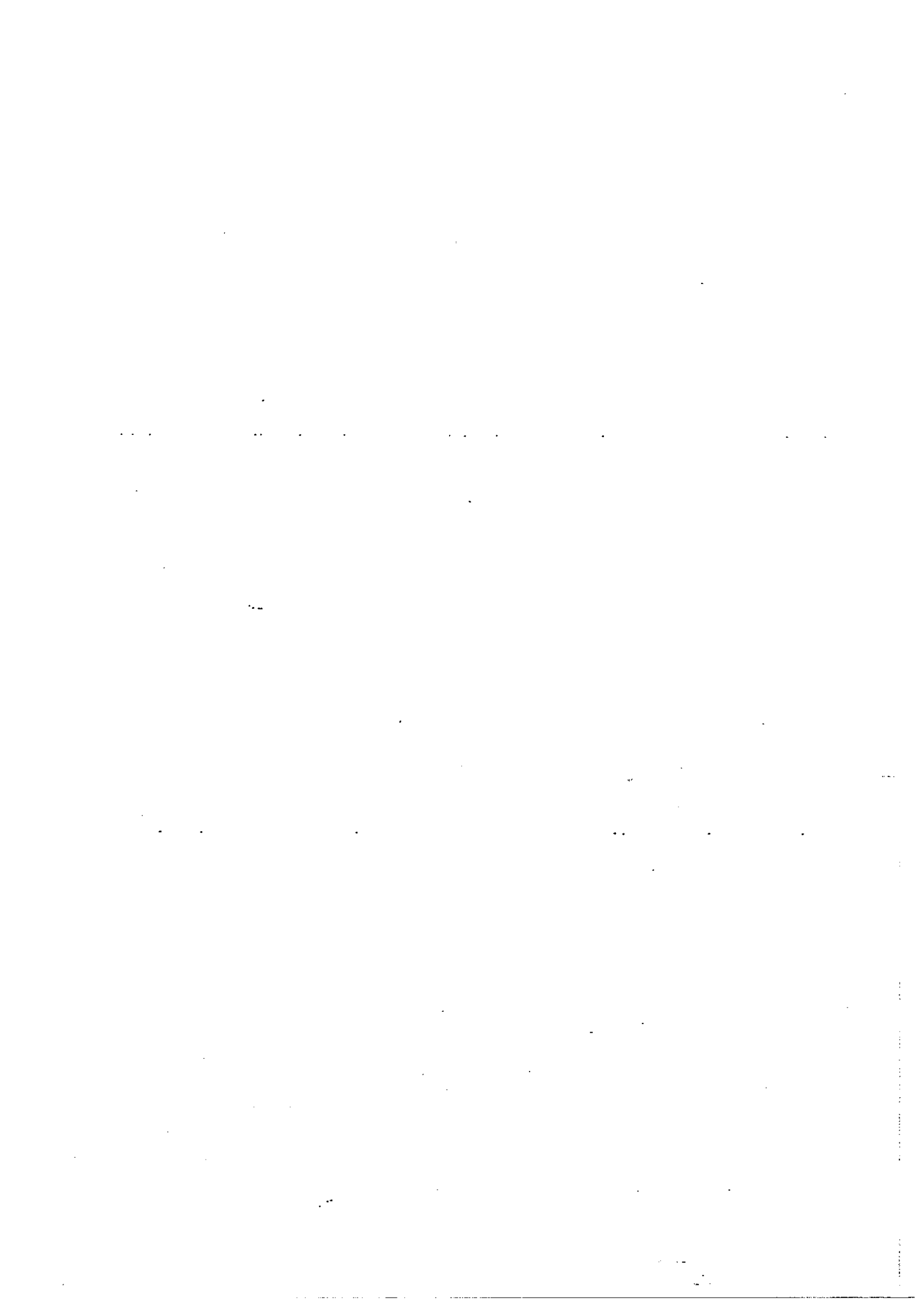
30. Mrs Rafi bought a pizza. She kept $\frac{1}{8}$ of it for herself and $\frac{1}{4}$ of it for her husband. Her children shared the remaining pizza. Each child ate $\frac{5}{16}$ of the pizza. How many children did she have?

Ans : _____

Subtotal

/ 6

END OF PAPER





NAN HUA PRIMARY SCHOOL
CONTINUAL ASSESSMENT 1 – 2012
PRIMARY 6

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 : 6 _____

Date : 28 Feb 2012

Parent's Signature : _____



Section A (10 marks)

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.

1. A 6-metre wooden rod is cut into shorter pieces each measuring $\frac{3}{5}$ m long. How many such pieces are there?

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Ans : _____ [2m]

2. Peter and John shared some stickers in the ratio 7 : 4. If Peter gave John 18 stickers, they would have the same number of stickers. How many stickers did John ^{have} get?

Ans : _____ [2m]

3. A number of trees are planted along a road. The distance between the first and last tree is 380 m. The distance between the 3rd and 6th tree is 60 m. How many trees are planted along the road?

Ans : _____ [2m]

Do not write
in this space

4. Last week, Devis spent 55% of her allowance. If she had spent \$12 more, she would have spent 85% of her allowance. How much was her weekly allowance?

Ans : \$ _____ [2m]

5. Jason spent $\frac{3}{4}$ of his money on a book and a pen. The book cost thrice as much as the pen. What fraction of his money did he spend on the book?

Ans : _____ [2m]

Section B (50 marks)

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 the brackets [] at the end of each question or part question. Remember to include the units wherever possible.

6. There are 3 boxes, A, B and C. The total mass of A and B is 55 kg, the total mass of A and C is 59 kg and the total mass of B and C is 60 kg. What is the mass of Box C?

Do not write
in this space

Ans : _____ [3m]

7. If ^{each} the side of a square is increased by 10%, find the percentage increase in its area.

Ans : _____ [3m]

3. For every \$2 that Chloe saves, Weiming saves \$3. For every \$5 that Weiming saves, Aini saves \$4. How much does Weiming save if the three of them save \$2 553 altogether?

Do not write
in this space

Ans : _____ [3m]

3. Henry and Jerry have a total of 480 stamps. 10% of Henry's stamps and 20% of Jerry's stamps are local stamps. A total of 70 stamps are local stamps. How many stamps does Jerry have?

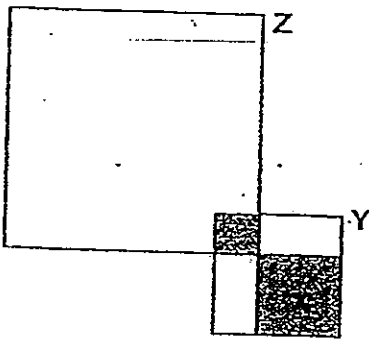
Ans : _____ [3m]

10. Ravi spent $\frac{1}{3}$ of her money on a pair of shoes and $\frac{4}{5}$ of the remainder on a bag. If the bag cost \$14 more than the shoes, how much money did Ravi have at first?

Do not write
in this space

Ans: _____ [3m]

11. In the figure shown below, X, Y and Z are squares. The ratio of the area of X to the area of Y is 4 : 9. The ratio of the area of Y to the area of Z is 1 : 4. Square Z overlaps with $\frac{1}{9}$ of square Y. Find the ratio of the shaded area to the unshaded area.



Ans : _____ [3m]

12. Mary, Jane and Tom scored an average of 79 marks in a Mathematics test. Mary's score was $\frac{2}{3}$ that of Jane's. Jane scored 11 more marks than Tom. Find the average score of Mary and Tom.

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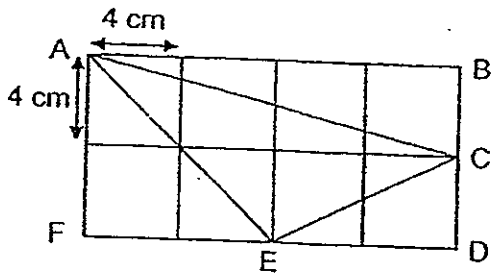
Ans : _____ [4m]

13. Ivan, Jack and Kevin shared a bag of cookies. Ivan took $\frac{1}{2}$ the bag of cookies and $\frac{1}{2}$ a cookie. Jack took $\frac{1}{2}$ the remaining bag of cookies and $\frac{1}{2}$ a cookie. Kevin took the rest of the 11 cookies. How many cookies were there in the bag at first?

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in this space

Ans : _____ [4m]

14. In the figure shown below, Rectangle ABDF is formed by 8 identical Squares of sides 4 cm. Find the area of Triangle ACE.



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Ans : _____ [4m]



15. The cost of a file is $\frac{2}{3}$ the cost of a pen. Mark spent $\frac{4}{7}$ of his money on 18 files and 4 pens. Then he used the rest of his money to buy another 2 pens and some files.
- (a) If he had spent all his money on pens, how many pens could he buy?
- (b) How many files did he buy altogether?

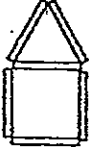


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Ans: (a) _____ [3m]

(b) _____ [2m]

16. Megan arranged some sticks as shown in the table below.

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Pattern Number	Pattern
1	
2	
3	
⋮	⋮

(a) How many sticks would Megan need for pattern number 5?

(b) For which pattern number would Megan need to use 96 sticks?

Ans : (a) _____ [2m]

(b) _____ [3m]

7. I do not have enough savings now to buy a watch.

If I increase my savings by 10%, I would still need another \$10.

If I increase my savings by 30%, I would have \$17 more than I need.

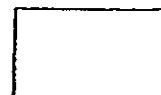
(a) How much money do I have in my savings now?

(b) How much does the watch cost?

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Ans: (a) _____ [3m]

(b) _____ [2m]



18. The ratio of the number of red markers to the number of blue markers in Box A is 3 : 1. The ratio of the number of red markers to the number of blue markers in Box B is 2 : 3. There are twice as many markers in Box A than Box B.

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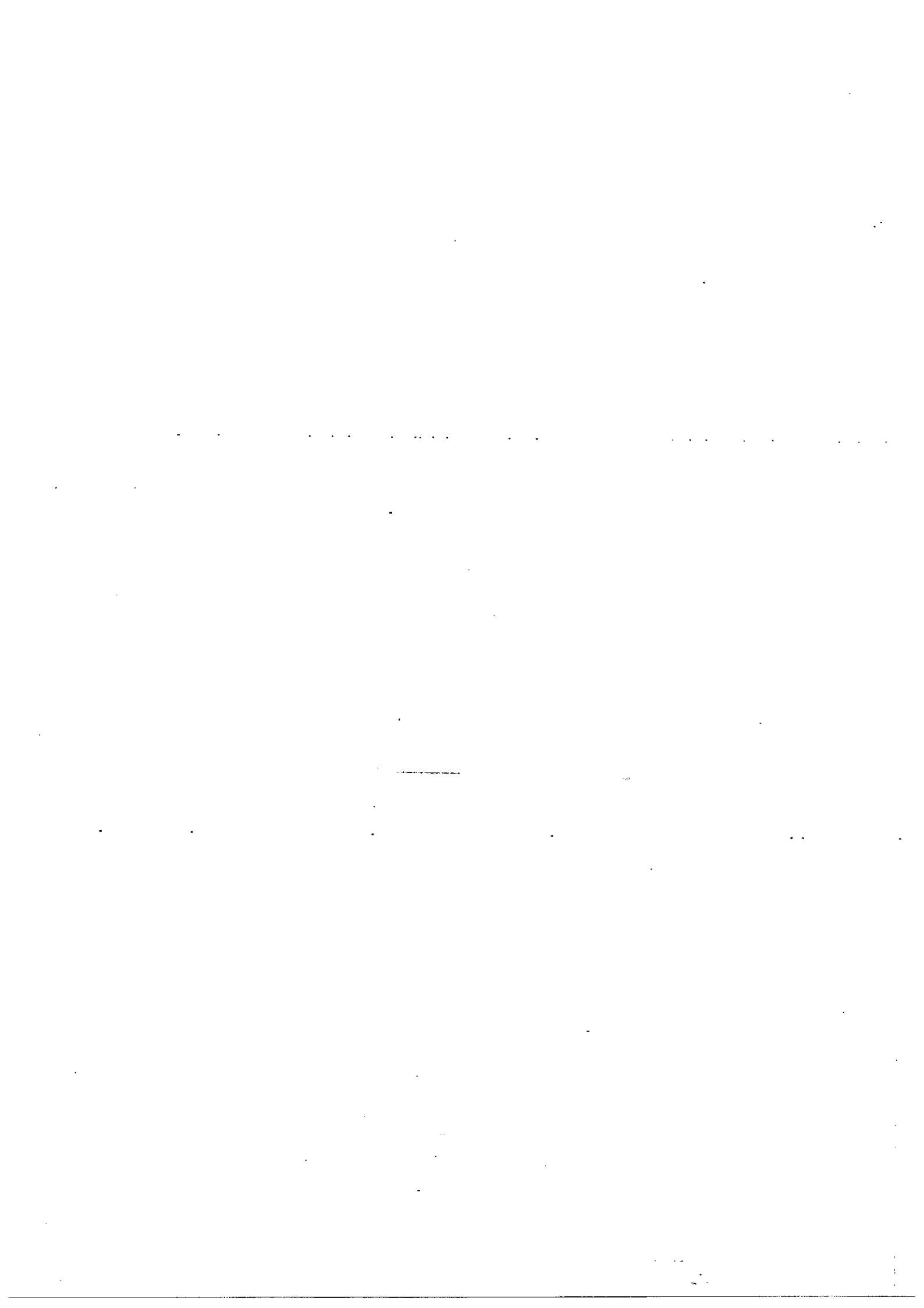
(a) What is the ratio of the number of red markers in Box A to the number of red markers in Box B?

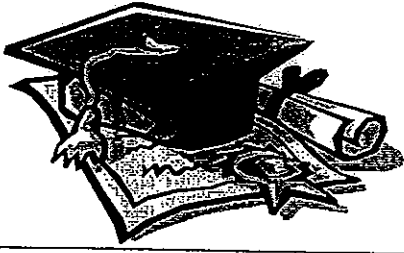
(b) 60 red markers are added into Box B and the ratio of the number of red markers to the number of blue markers in Box B becomes 4 : 1. How many blue markers are there in Box B?

Ans: (a) _____ [2m]

(b) _____ [3m]

END OF PAPER





ANSWER SHEET

EXAM PAPER 2012

SCHOOL : NAN HUA
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : CA1

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

- 16) 7 pieces 17) 25% 18) 6 19) 5:4 20) \$640
21) 21 more cups 22) 50 23) \$140 24) 150° 25) 6 times
26) 76° 27) 980 cm³ 28) 4 boys 29) 10:5:2 30) 2 children

Paper 2

1) $6 \div \frac{3}{5} = 6 \times \frac{5}{3} = 10$
There are 10 such pieces.

2) $7u - 18 = 4u + 18$
 $7u = 4u + 36$
 $3u = 36$
 $1u = 12$
 $36 + 12 = 48$
John got 48 stickers.

3) $6 - 3 = 3$
 $60 \div 3 = 20$
 $380 \div 20 = 19$
 $19 + 1 = 20$
20 trees are planted along the road.

$$)85 - 55 = 30$$

$$12 \div 30 = 0.4$$

$$0.4 \times 100 = 40$$

Her weekly allowance is \$40.

$$)3/4 \div 4 = 3/16$$

$$3/16 \times 3 = 9/16$$

The fraction of his money he spent on the book was 9/16.

$$)55 + 59 + 60 = 174$$

$$2A + 2B + 2C = 174$$

$$A + B + C = 87$$

$$87 - 55 = 32$$

The mass of box C is 32kg.

$$)10 \times 10 = 100$$

$$11 \times 11 = 121$$

$$121/100 \times 100 = 21$$

$$121 - 100 = 21$$

The percentage increase in its area is 21%.

$$)10 + 15 + 12 = 37$$

$$2553 \div 37 = 69$$

$$69 \times 15 = \$1035$$

Heimung saved \$1025.

$$)70 \times 10 = 700$$

$$700 - 480 = 220$$

Harry has 220 stamps.

$$)8 - 5 = 3$$

$$3u - 14$$

$$15 \rightarrow 14 \times 5 = 70$$

Hevi had \$70 at first.

$$)5 : 39$$

$$12) 237 + 11 = 248$$

$$248 \div 8 = 31$$

$$31 \times 2 = 62$$

$$31 \times 3 = 93$$

$$93 - 11 = 82$$

$$62 + 82 = 144$$

$$144 \div 2 = 72$$

The average score of Mary and Tom is 72 marks.

$$13) 11 + \frac{1}{2} = 11\frac{1}{2}$$

$$11\frac{1}{2} \times 2 = 23$$

$$23 + \frac{1}{2} = 23\frac{1}{2}$$

$$23\frac{1}{2} \times 2 = 47$$

There were 47 cookies in the bag.

$$14) 8 \times 16 = 128$$

$$4 \times 4 = 16$$

$$4 \times \frac{16}{2} = 32$$

$$8 \times \frac{8}{2} = 16$$

$$32 + 32 + 16 = 80$$

$$128 - 80 = 48$$

The area of Triangle ACE is 48cm²

$$15)a) 18 \times 2 = 36$$

$$4 \times 3 = 12$$

$$36 + 12 = 48$$

$$48 \div 4 = 12$$

$$12 \times 7 = 84$$

$$84 \div 3 = 28$$

He can buy 28 pens.

$$b) 3 \times 21 = 36$$

$$2 \times 3 = 6$$

$$36 - 6 = 30$$

$$30 \div 2 = 15$$

$$15 + 18 = 33$$

He bought 33 files.

6)a) $16 + 10 = 26$

he would need 26 sticks for pattern number 5.

b) $96 - 6 = 90$

$90 \div 5 = 18$

$18 + 1 = 19$

he needs to use 96 sticks in Pattern number 19.

7)a) $10 + 17 = 27$

$30 - 10 = 20$

$27 \div 20 = 1.35$

$1.35 \times 100 = 135$

have \$135 in my savings now.

b) $1.35 \times 110 = 148.5$

$148.5 + 10 = 158.5$

the watch cost \$158.50

8)a) 15:4

b) 18 blue marbles.