NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2 – 2008
PRIMARY 5

MATHEMATICS

Paper 1

Section A: 15 Multiple Choice Questions (20 marks)

Section B: 10 Questions (20 marks)

Total Time for Paper 1: 50 minutes

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.
5. Shade your answers in the Optical Answer Sheet (OAS) provided for Questions 1-15.
6. You are <u>not allowed</u> to use the calculator for Paper 1.

Marks Obtained

Paper 1		/ 40
Paper 2		/ 60
Total		/ 100

Name : _____ (   )

Class : _____

Date : 24 October 2008   Parent's Signature : _____

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
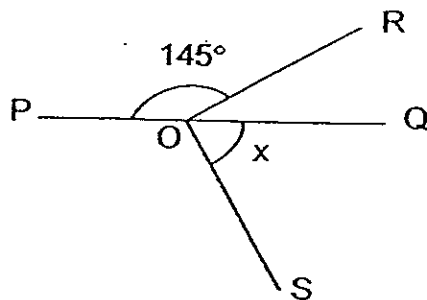
Optical Answer Sheet.

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1. How many <u>quarters</u> are there in $3\frac{1}{2}$?

    (1) 5
    (2) 7
    (3) 14
    (4) 16

2. What is the value of $(12 - 7) + 8 \times 4 - 2$?

    (1) 21
    (2) 26
    (3) 35
    (4) 50

3. Given that PQ is a straight line and $\angle$ROS is a right angle,
    find $\angle x$ in the figure shown (not drawn to scale).
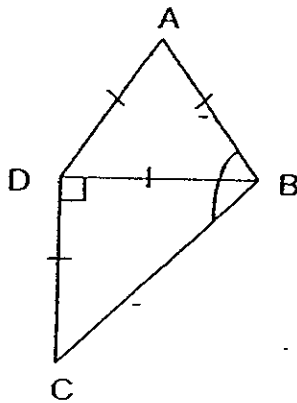

    (1) 35°
    (2) 45°
    (3) 55°
    (4) 65°

4. The ratio of the number of boys to the number of girls in a class is 4 : 5.

   If there are 5 more girls than boys, how many boys are there in the class?

   (1)   20
   (2)   25
   (3)   45
   (4)   4

5. Look at the figure below (not drawn to scale). Find ∠ABC.

   A

   D   B

   C

   (1)   105°
   (2)   120°
   (3)   135°
   (4)   150°

6. Which one of the following statements is **true**?

   (1)   A rhombus has all the properties of a square.

   (2)   No angle can be 60° in a right-angled triangle.

   (3)   The sum of angles in a four-sided figure is always different.

   (4)   If one of the angles in an isosceles triangle is 60°, then the triangle is an equilateral triangle.

7. Which of the following shapes **cannot** be tessellated?

(1)

(2)

(3)

(4)
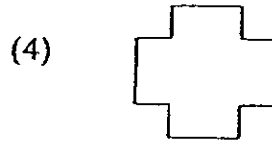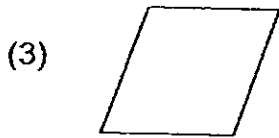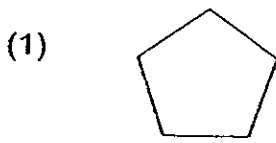
8. Rope A is $2\frac{4}{5}$ m long. Rope A is $\frac{1}{2}$ m shorter than Rope B. What is the length of Rope B?

(1) $1\frac{2}{5}$ m

(2) $2\frac{3}{10}$ m

(3) $3\frac{3}{10}$ m

(4) $5\frac{3}{5}$ m

9. Three brothers shared a sum of money. The eldest brother got 0.5 of the money and the second brother got $\frac{3}{10}$ of it. What percentage of the money did the youngest brother get?

(1) 20%
(2) 35%
(3) 53%
(4) 80%

10. What is the value of 6.742 × 30? Round off your answer to the nearest tenth.
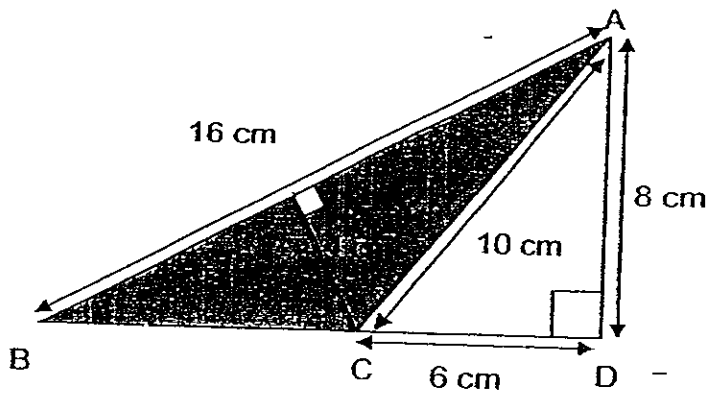
(1) 20.2
(2) 20.3
(3) 202.2
(4) 202.3

3

11. Sally spent 40% of her pocket money on some notebooks and had $12 left. How much was her pocket money?

    (1) $20
    (2) $28
    (3) $30
    (4) $52

12. In the figure below (not drawn to scale), what is the area of the shaded triangle ABC?

    (1)   20 cm^2
    (2)   32 cm^2
    (3)   40 cm^2
    (4)   64 cm^2

13. The rental rates for bicycles at a bicycle kiosk are as follows:

Number of hours	Rate
1st hour	$3.50
Every additional hour	$2.50

Alice and her friend rented a bicycle each for 3 hours. How much did they pay altogether?

    (1) $8.50
    (2) $15.00
    (3) $17.00
    (4) $21.00

The line graph below shows the number of students participating in the different sports CCA in school. Study it carefully and answer questions 14 and 15.

Number of students participating in the different sports CCA in school
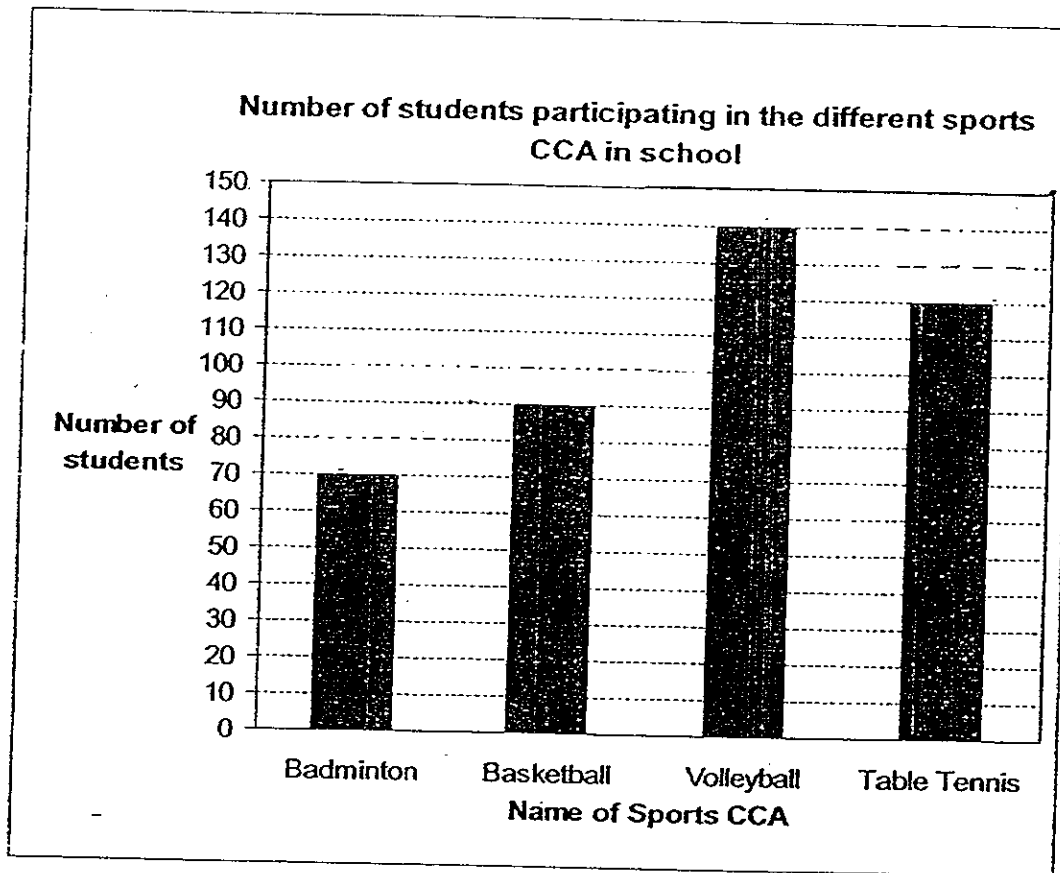
14. What is the difference between the number of students participating in Badminton and those participating in Table Tennis?

   (1)   20
   (2)   30
   (3)   50
   (4)   70

15. What fraction of the students participating in sports CCA play basketball?

   (1) $\dfrac{1}{3}$

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

   (3) $\dfrac{2}{7}$

   (4) $\dfrac{3}{14}$

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. $10 \times 2.3 = 2.3 + 2.3 + 2.3 + 2.3 \times \boxed{}$

    What is the missing number in the box?

    Ans: _____

17. Peter scored 56 marks for English, 89 marks for Mathematics and 80 marks for Science. What is his average score for the three subjects?

    Ans:_____

18. What are the common factors of 18 and 24?

    Ans:_____

19. Mrs Tan got $\frac{1}{3}$ of her husband's bonus. The rest of the bonus was divided equally among his 5 children. What fraction of the bonus did each of his children get?
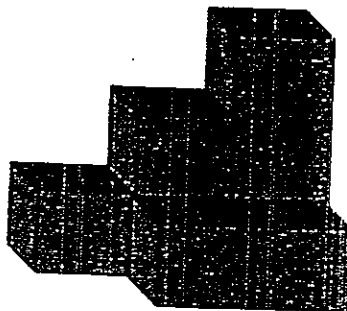
Ans :_____

20. The ratio of the length of a rectangle to its breadth is 8 : 3. If the perimeter of the rectangle is 22 cm, what is its area?

Ans:_____ cm^2

21. John buys a wallet that costs $150. If GST is 7%, how much GST does he have to pay?

Ans: $_____

22. The following solid figure is built using 2-cm cubes. What is the volume of the figure?

Ans :_____ cm^3

23. Express 10.03 km in km and m.

Ans: _____ km _____ m

24. Express 55% as a fraction in its simplest form.

Ans: _____

25. The total mass of Ali, Ben and David is 108 kg. Edward's mass is 42 kg. What is the average mass of the 4 boys?
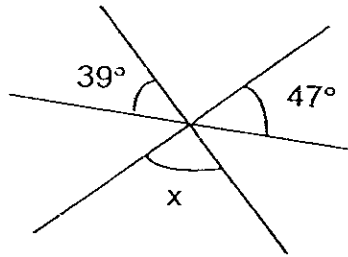
Ans: _____ kg

26. There are 10 lamp posts spaced equally apart along a stretch of road. If the distance between two lamp posts is 10 m, what is the distance between the first and last lamp posts?

Ans: _____ m

27. If twice a number is 12 more than $\frac{2}{3}$ of the same number, what is the number?

Ans: _____

8

28. Study the figure below (not drawn to scale). What is $\angle x$?

Ans : _____ °

29. Jason and Pete had the same amount of money. After Jason had spent $180 on a pair of inline skates, Pete had 4 times as much money as Jason. How much did each of them have at first?

Ans : $_____

30. Three identical squares are overlapped as shown in the figure below. The ratio of a side of shaded square A to a side of shaded square B is 2 : 1. What is the ratio of the shaded portions to the unshaded portions? (The diagram below is not drawn to scale.)
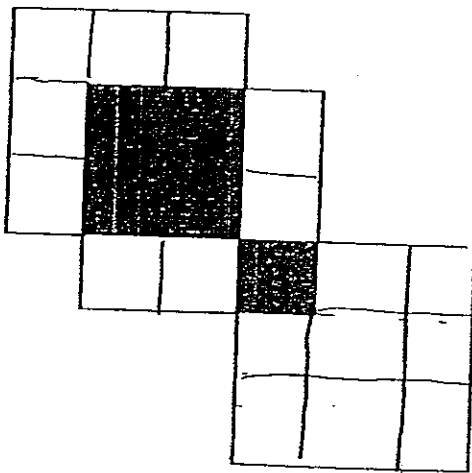
Ans : _____

End-of-Paper 1

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 2008   Parent's Signature : _____

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.   The sum of the area of all the faces of a **solid** cube is 54 cm^2.
        What is the volume of the cube?

                                                        Ans :_____cm^3

2. $\frac{2}{7}$ of the spectators at a soccer match are adults. What percentage of the spectators are children? Give your answer correct to 1 decimal place.

                                                        Ans:_____%

3.   Complete the number sequence.

        1 , 4 , 9 , _____ , 25

                                                        Ans:_____

4.   The average height of 5 boys is 145 cm. The average height of 3 of the boys is 155 cm. What is the average height of the other 2 boys?

                                                        Ans:_____cm

5.   The capacity of a soft drink can is 330 mℓ. What is the capacity of 35 such cans? Give your answer correct to the nearest litre.

   Ans:_____ℓ

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. Ali folds a rectangular piece of paper 26 cm by 18 cm and cuts out the shape as shown. What is the area of the remaining piece of paper?
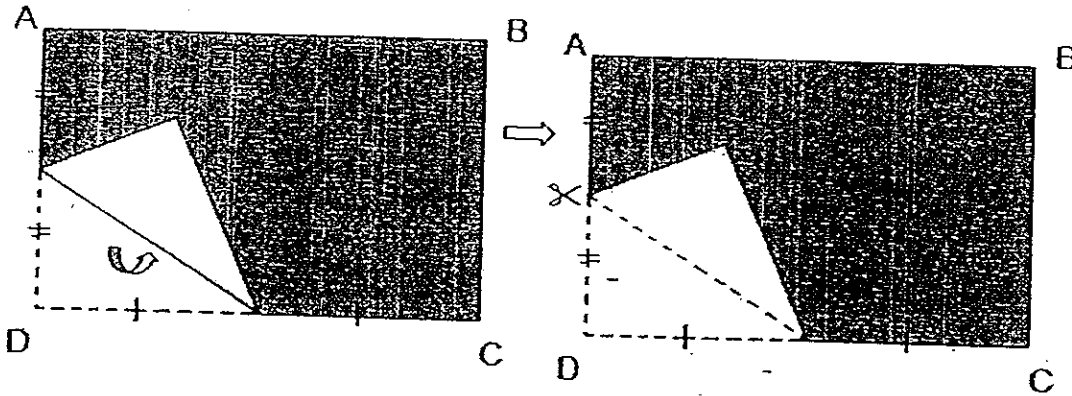
Ans: _____ [3]

7. In the figure (not drawn to scale), ABDE is a rhombus and ∠ABE is 23°.

(a) Find ∠EDB.

(b) If BC = AB, find ∠BDC.

Ans: (a) _____ [1]

(b) _____ [2]
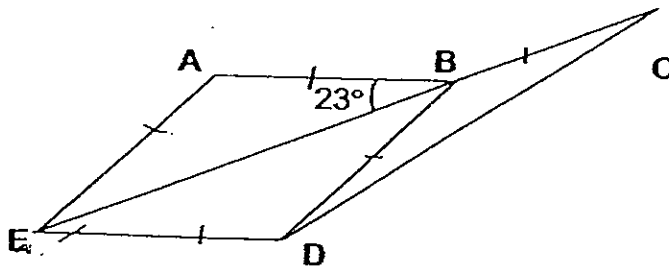
2

8. David read $\frac{1}{5}$ of a book on the first day. On the second day, he read 75% of the remaining pages. He had 75 pages left to read.
How many pages were there in the book?

Ans:_____[3]

9. Alice and Ben each had some money. If Ben gave 0.4 of his money to Alice, they would have the same amount of money.
What percentage of Ben's money did Alice have?

Ans: _____ [3]

10. An adult admission ticket to a museum costs twice as much as a child's ticket. Two teachers and a group of 35 pupils paid a total of $97.50 for the admission tickets. How much does an adult admission ticket cost?

Ans:_____ [3]

11. An orange drink is made by mixing orange syrup and water in the ratio 3 : 5. If Mrs Wang wants to make 2 ℓ of orange drink, how many millilitres of orange syrup does she need?

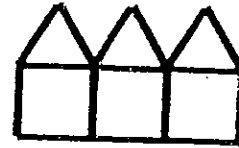Ans:_____ [3]

12. John uses toothpicks to make a row of houses as shown.

1 house   2 houses   3 houses

(a) Complete the table below.

Number of houses	Number of toothpicks used
1	6
2	11
3	16
4	_____ [1]
5	_____ [1]

(b) John uses a total of 326 toothpicks for a row of houses.
How many houses are there in the row?

Ans: _____ [2]

13. The ratio of the length to the breadth to the height of a cuboid is 5 : 3 : 8. If the breadth of the cuboid is 15 cm, what is the volume of the cuboid?

Ans _____ [4]

14. The cost of a pair of slippers is 40% of the cost of a pair of shoes. If the two items cost $95.20 altogether, how much does a pair of slippers cost?

Ans: _____ [4]

6

15. In a Mathematics test, Bala scored $\frac{5}{6}$ of Calvin's score and Calvin scored 8 more marks than Dan. If the average score of the 3 boys is 88, what is <u>Calvin's</u> score?

Ans: _____ [5]

16. A baker baked 3 times as many loaves of bread as cakes. If he had baked 90 fewer loaves of bread, he would have baked twice as many cakes as loaves of bread.

(a) How many loaves of bread did he bake?

(b) How many cakes did he bake?

Ans: (a)_____ [3]

(b)_____ [2]

17. At a grocery store, green apples were sold at 50 cents each while red apples were sold at 40 cents each. For every 5 red apples that Mrs Lim bought, she bought a green apple. If Mrs Lim spent $15 on the apples, how many more red apples than green apples did she buy?
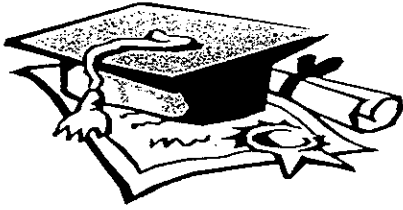
Ans:_____[5]

18. If Mr Ibrahim buys 3 plates and 5 cups, he will have $6 left. If he wants to buy 5 plates and 3 cups, he will need another $4. Given that a cup costs $1.50, how much does he have?

Ans:_____[5]

End of Paper 2

Remember to check your work!

ANSWER SHEET

EXAM PAPER 2008

SCHOOL   : NAN HUA PRIMARY SCHOOL
SUBJECT : PRIMARY 5 MATHEMATICS

TERM   : SA 2

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

16)7   17)75   18)1,2,3,6   19)2/15   20)24cm^2

21)$10.50   22)64cm^3 23)10km30m   24)11/20   25)37.5g

26)90m   27)9   28)94°   29)$240   30)5:17

Paper 2

1)27cm^3 2)71.4%   3)16   4)130cm   5)12

6)18÷2=9
  26÷2=13
  13x9=117
  26x18=468
  468-117=351
The area of the remaining piece of paper is 351cm^2

7)23° x2=46°
  180° -46° =134°
  23° ÷2=11.5°
  a)∠EDB is 134°
  b)∠BDC is 11.5°

8) 75x5=375

There were 375 pages in the book.

9) 2/10=20%

Alice has 20% of Ben's money.

10) 2x2=4

35+4=39

$97.50÷39=$2.50

$2.50x2=$5

An adult admission ticket costs $5.

11) 3+5=8

2L ÷ 8=250ml

250mlx3=750ml

She needs 750ml of orange syrup.

12) a) 4: 21   5:26

b) 326-6=320

320÷5=64

64+1=65

There are 65 houses in the row.

13) 15÷3=5

5x5=25

5x8=40

25x15=375

375x40=15000

The volume of the cuboid is 15000cm$_3$

14) $95.20÷14=$6.80

$6.80x4=$27.20

A pair of slippers cost $27.20

15) 88x3=264

264+8=272

272÷17=16

16x6=96

Calvin scored 96 marks.

16)a) 90=5 units

1 unit→90÷5=18

18x6=108

b) 108÷3=36

17) $0.40x5=$2

$2+$0.50=$2.50

$15÷$2.50=6

6x5=30

30-6=24

She bought 24 more red apple than green apples.

18) 3p+5C→$6 left

5P+3C→need another $4

6+4=$10

2P cost $10 more than 2C

→1p cost $5 more than 1C

If 1 C costs→$1.50

→1P will cost $1.50+$5=$6.50

Total cost of 3P and 5C =($1.50x5)+($6.50x3)=$27

$27+$6=$33