

SAT

NAN HUA PRIMARY SCHOOL  
MID-YEAR EXAMINATION - 2005  
MATHEMATICS  
PRIMARY FOUR

Name: \_\_\_\_\_ ( )

Marks:

100

Class: Primary 4 \_\_\_\_\_

Date: 10 May 2005

Duration: 1h 45min

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

**Section A (20 × 2 marks)**

Questions 1 to 20 carry 2 marks each.

Of the 4 options given, only one is correct. Choose the correct answer (1, 2, 3 or 4) and write its number in the brackets provided.

1. Which of the following is the **largest** in value?

- (1) Fifteen thousand and fifteen.
- (2) Five thousand five hundred and forty-nine.
- (3) Fifty thousand.
- (4) Fifteen thousand six hundred and forty.

( )

2. Which of the following is **false**?

- (1) A trapezium has a pair of parallel lines.
- (2) A rectangle has two pairs of parallel lines.
- (3) All the angles in a rhombus are equal.
- (4) Squares, rhombuses, and parallelograms each have two pairs of parallel lines.

( )

3. I am a multiple of 7 and a factor of 56. What number am I?

- (1) 1
- (2) 8
- (3) 21
- (4) 28

( )

4. 6 is a **common factor** of \_\_\_\_\_ and \_\_\_\_\_

- (1) 2 and 3
- (2) 8 and 12
- (3) 6 and 14
- (4) 12 and 36

( )

5. Alan went to a computer show and saw the following offers.



Set A

3 pieces for \$9.90



Set B

\$3.50 each



Set C

\$36 a dozen



Set D

\$31 for 10 pieces

Which offer has the best value for money?

- (1) Set A
- (2) Set B
- (3) Set C
- (4) Set D

( )

6. Vivien had 644 stickers. She put 9 stickers each in 52 envelopes, and gave the rest away. How many stickers did she give away?

- (1) 61
- (2) 176
- (3) 468
- (4) 635

( )

7. Which of the following when rounded off to the nearest hundred is \$10 000?

- (1) \$9 099
- (2) \$9 509
- (3) \$9 909
- (4) \$9 951

( )

8. Javier received \$90 during the ~~Chinese~~ New Year. He walked past a toy shop having a special promotion.

TOYS GALORE Super Sale !!! Hurry!	
Space Aliens Gun	\$ 12
Bouncing Bouncy Ball	\$ 8
Crash Dash Smash Car	\$ 15

What could he have bought if he ~~spend~~ all his money?

- (1) 2 guns, 2 balls, 4 cars  
 (2) 3 guns, 3 balls, 3 cars  
 (3) 1 gun, 5 balls, 2 cars  
 (4) 3 guns, 3 balls, 2 cars

( )

9.  $\frac{7}{8} = \frac{\boxed{?}}{24} = \frac{42}{48}$

The missing number is \_\_\_\_\_.

- (1) 14  
 (2) 16  
 (3) 3  
 (4) 21

( )

10. Which of the following will give the largest answer ?

- (1)  $1 - \frac{1}{7}$   
 (2)  $1 - \frac{1}{6}$   
 (3)  $1 - \frac{1}{5}$   
 (4)  $1 - \frac{1}{4}$

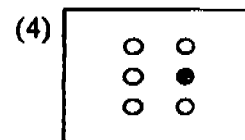
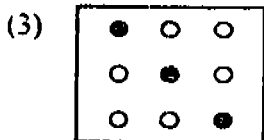
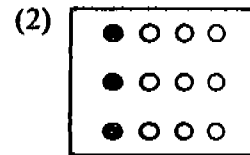
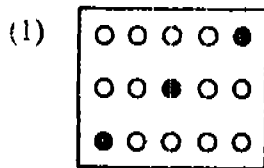
( )

11. Mrs Lee bought a pizza. She ate  $\frac{1}{4}$  of it and her husband ate  $\frac{1}{3}$  of it.  
What fraction of the pizza was left?

- (1)  $\frac{3}{4}$   
 (2)  $\frac{2}{3}$   
 (3)  $\frac{5}{12}$   
 (4)  $\frac{7}{12}$

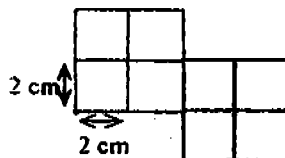
( )

12. Which of the following shows that  $\frac{1}{5}$  of the set is shaded?



( )

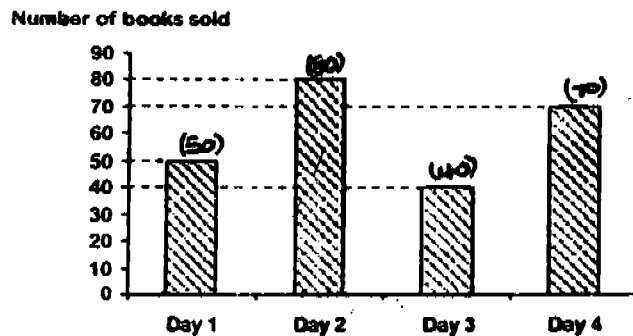
13. The figure, not drawn to scale, is made up of equal squares. What is its perimeter?



- (1) 46 cm  
 (2) 30 cm  
 (3) 28 cm  
 (4) 14 cm

( )

14. Kenneth set up a stall at a book fair recently. The graph below shows the sales that he had made during the four days.

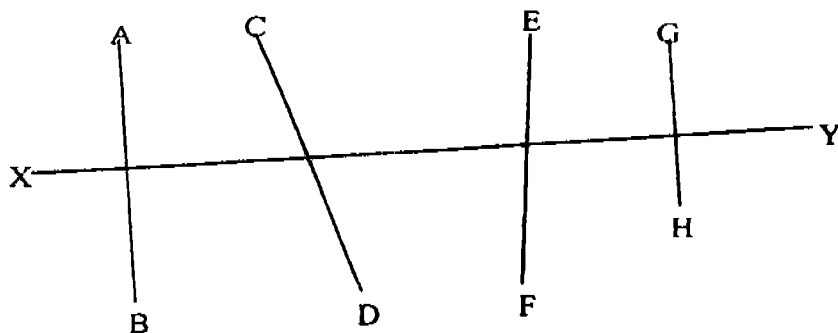


Express the sales on Day 2 as a fraction of the total sales for the 4 days.

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

( )

15.

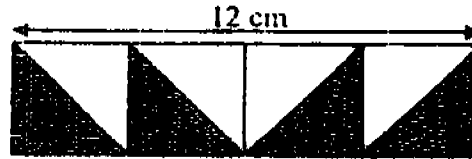


Which line is parallel to AB?

- (1) CD  
 (2) EF  
 (3) GH  
 (4) XY

( )

16.

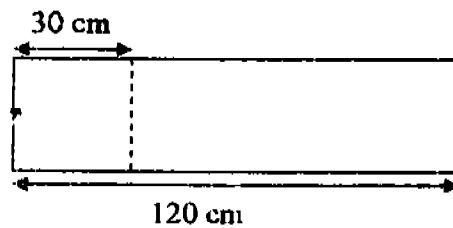


This figure is made up of 4 identical squares joining together.  
If the length of the figure is 12 cm, find the area of the shaded region.

- (1)  $9 \text{ cm}^2$
- (2)  $18 \text{ cm}^2$
- (3)  $3 \text{ cm}^2$
- (4)  $36 \text{ cm}^2$

( )

17.

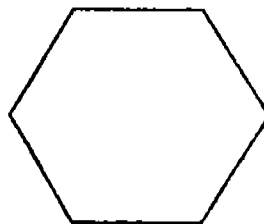


This figure is made up of a rectangle and a square. Find the perimeter of the figure.

- (1) 240 cm
- (2) 300 cm
- (3) 330 cm
- (4) 340 cm

( )

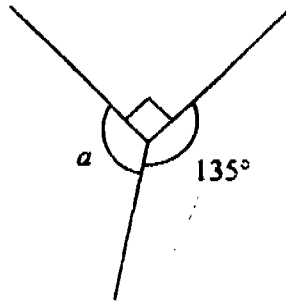
18. How many pairs of parallel lines are there in the figure?



- (1) 1
- (2) 0
- (3) 3
- (4) 6

( )

19.

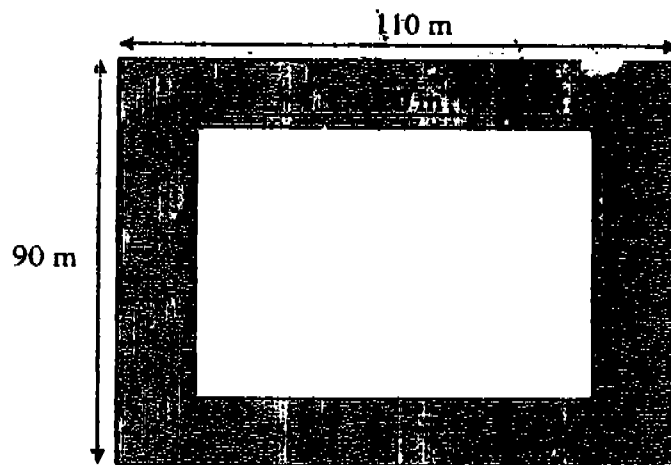


Without using a protractor, calculate  $\angle a$ . (This figure is not drawn to scale).

- (1)  $45^\circ$
- (2)  $135^\circ$
- (3)  $145^\circ$
- (4)  $225^\circ$

( )

20. Find the area of the shaded region.



- (1)  $360 \text{ m}^2$
- (2)  $3\,600 \text{ m}^2$
- (3)  $6\,300 \text{ m}^2$
- (4)  $9\,900 \text{ m}^2$

( )

**Section B: Open-ended Questions (20 × 2 marks)**

Questions 21 to 40 carry 2 marks each.

Write out the correct answers for the following questions in the boxes provided.

Show your workings clearly, and give your answers in the units provided.

21. The digit '9' in 90 142 stands for \_\_\_\_\_.

22. What is the quotient when 7 231 is divided by 4?

23. Complete the number pattern.

_____	,	9	,	25	,	49	,	81	,	121
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24. Jason had some money. He spent \$19 on a soccer ball and \$7 on a pair of shorts. He then had \$54 left. How much did he have at first?

\$

25. Mrs Lim earns \$600 more than Mr Lim in 6 months. If Mrs Lim earns \$3 000 a month, how much does Mr Lim earn every month?

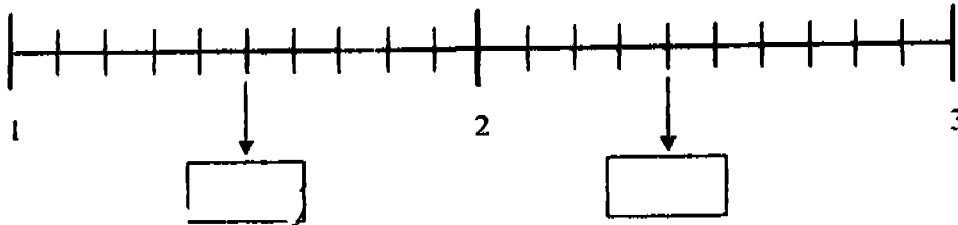
\$



26.  $\frac{1}{3}$  of the 99 stickers in a box had been used up by the students. How many stickers were left in the box?

stickers

27. Fill in the missing values in the boxes. Express the fractions in the simplest form.



28. In a box of marbles,  $\frac{1}{4}$  of the marbles were red,  $\frac{3}{8}$  of the marbles are blue, and the rest were green. If the box contained 240 marbles, how many green marbles were there?

green marbles

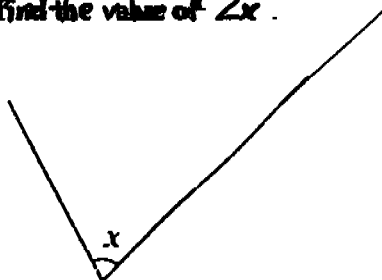
29.  $\frac{1}{2} - \frac{2}{5} =$

30. Arrange the fractions in descending order.

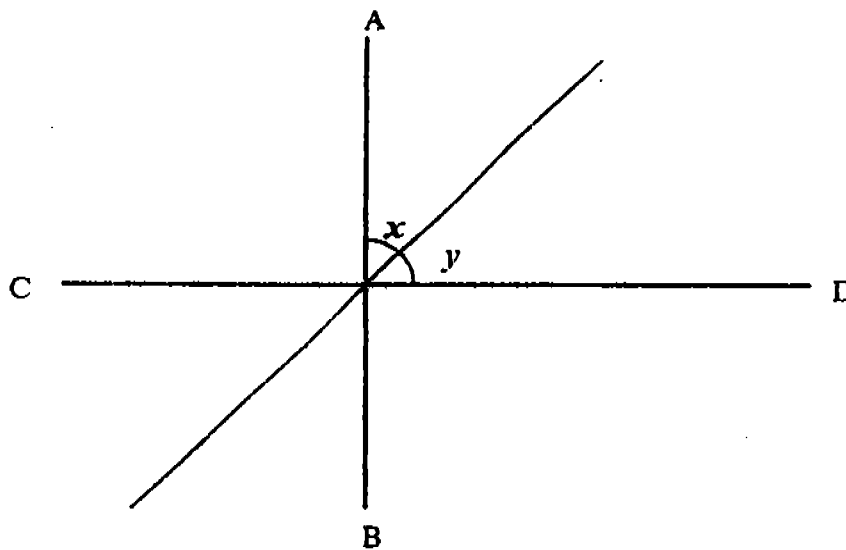
$\frac{5}{12}, \frac{1}{6}, \frac{1}{2}$

31. Convert  $\frac{27}{8}$  into a mixed number.

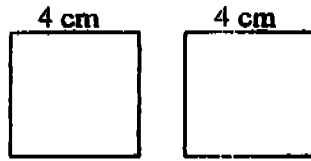
32. Using a protractor, find the value of  $\angle x$ .



33. Line AB is perpendicular to Line CD. If  $\angle x = \angle y$ , find  $\angle x$ .  
(Do not use a protractor as the figure is not drawn to scale.)



34. Benjamin used a wire to form squares like those shown below.



If he has 100 cm of wire, what is the most number of such squares that he can form?

squares

35.  $\frac{5}{8}$  of the students in Primary 4A are girls, and  $\frac{2}{5}$  of the ~~students in Primary~~ 4B are girls. If there are 40 students in each class, how many more girls are ~~there in~~ Primary 4A?

more girls

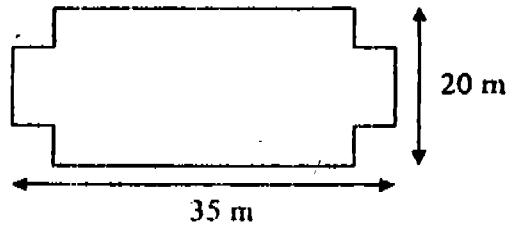
36. Below is a table showing the number of books read by 4 children ~~this~~ term.

Name	Thomas	Wenwen	Rachel	Leonard
Books Read	48	12	7	? : 2

If Leonard read  $\frac{1}{4}$  as many books as Thomas, how many books ~~did~~ the children read altogether?

books

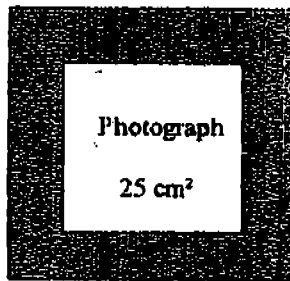
37. Find the perimeter of the following figure.


 m

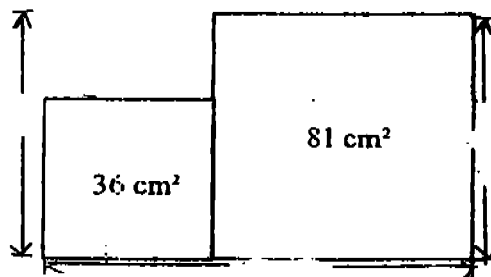
38. The floor of a house is tiled at \$30 per  $\text{m}^2$ . The owner of the house decides to tile his 10 m by 20 m living room. How much would it cost?

\$

39. A square photograph is placed into a square frame. The area of the photograph is  $25 \text{ cm}^2$ , and the perimeter of the frame is 28 cm. Find the area of the shaded region.


  $\text{cm}^2$ 

40. This figure is made up of two squares placed side by side. Find the perimeter of the figure.


 cm

12

**Section C: Problem Sums (5 × 4 = 20 marks)**

Do the following sums carefully. All statements and workings must be clearly shown.  
All units must also be stated clearly.

41. At a camp, 240 students were divided into 8 equal groups. In each group, there were 12 girls. How many boys were there at the camp?

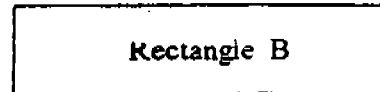
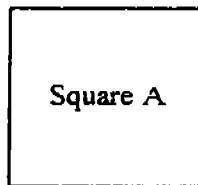
42. 8 teachers and 240 students went to the Science Centre for an educational tour. The admission rates were as follow:

Type	Price (per person)
Adults	\$6
Students	$\frac{1}{2}$ the adult fare

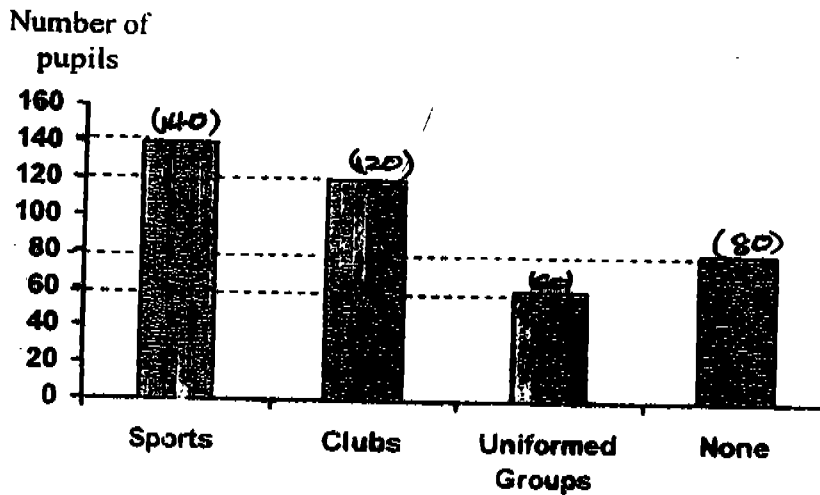
- a) How much did the school spend on the tour?
- b) Another school paid \$900 for the tour. If there were 25 teachers on the trip, how many students went for the tour?

43. Rachel bought 126 pencils. She gave 12 pencils to each of her 3 friends. She then sold  $\frac{2}{3}$  of the remaining pencils at 50¢ each. How much money did she receive from the sale?

44. The area of a square A is equal to that of rectangle B. If the area of the square is  $64 \text{ cm}^2$ , and its breadth is twice as long as the rectangle's, find the perimeter of the rectangle.



45. This graph shows the CCA participation rate in Greenwich Primary School in January. In this school, pupils would only participate in one CCA.



- a) How many pupils were involved in CCAs?  
 b) In this month, 20 pupils joined the Uniformed Groups, while 40 pupils decided to leave their clubs. What fraction of the pupils in the school participates in CCAs now? (Give your answer in the simplest form.)



--End of Paper--

Please Check your work!!!

SA1

**Nan Hua Primary School**  
**Primary 4 Maths SA1 Exam (2005)**

*Exam Summary*

**Answer Sheets**

Q1	Q2	Q3	Q4	Q5
3	3	4	4	3
Q6	Q7	Q8	Q9	Q10
2	4	4	4	1
Q11	Q12	Q13	Q14	Q15
3	1	3	3	3
Q16	Q17	Q18	Q19	Q20
2	2	3	2	2

- |  |                     |
|--|---------------------|
| 21. 90000                                    | 31. $3\frac{3}{8}$  |
| 22. 1807                                     | 32. $73^\circ$      |
| 23. 1  | 33. $45^\circ$      |
| 24. \$80                                     | 34. 6               |
| 25. \$2900                                   | 35. 9               |
| 26. 66                                       | 36. 79              |
| 27. $2\frac{3}{5}$                           | 37. 110m            |
| 28. 90                                       | 38. \$6000          |
| 29. $\frac{1}{10}$                           | 39. $24\text{cm}^2$ |
| 30. $\frac{1}{2}, \frac{5}{12}, \frac{1}{6}$ | 40. 48cm            |



41.  $12 \times 8 = 96$   
There are 96 girls at the camp  
 $240 - 96 = 144$   
There are 144 boys at the camp.

42a.  $\$6.00 \times 8 = \$48.00$   
The teacher fee is  $\$48.00$   
 $\$6.00 \div 2 = \$3.00$   
A student's fee is  $\$3.00$   
 $\$3.00 \times 260 = \$780.00$   
Total students fee are  $\$780.00$

$\$780.00 + \$48.00 = \$828.00$   
The school spent  $\$828.00$  on the tour.

42b.  $\$6.00 \times 25 = \$150.00$   
The teacher fee is  $\$150.00$   
 $\$900.00 - \$150.00 = \$750.00$   
 $\$750.00 \div \$3.00 = 250$

**Therefore, there are 250 students went for the tour.**

44. Area of square A =  $8\text{cm} \times 8\text{cm} = 64\text{cm}^2$   
The length of square A is 8cm  
Breadth of rectangle B =  $8\text{cm} \div 2 = 4\text{cm}$   
The breadth of rectangle B is 4cm  
Length of rectangle B =  $64\text{cm}^2 \div 4\text{cm} = 16\text{cm}$   
The length of rectangle B is 16cm  
Perimeter of rectangle B =  $(4 + 16 + 4 + 16) \text{ cm}$   
= 40cm

**Therefore, the perimeter of rectangle B is 40cm**

45a.  $140 + 120 = 260$

$260 + 60 = 320$

320 pupils were involved in CCAs.

45b.  $60 + 20 = 80$

In this month 80 pupils are in the uniformed Group.

$120 - 40 = 80$

In this month 80 pupils are in their clubs.

$320 + 80 = 400$

There are 400 pupils in the school.

$140 + 80 = 220$

$220 + 80 = 300$

In this month 300 pupils have CCAs.

$$300 = \frac{300}{400} = \frac{3}{4}$$

$\frac{3}{4}$  is the fraction that pupils in the school participants in CCAs now.