Nan Hua Primary School
Semestral Assessment 1 - 2007
Mathematics
Primary Five

Name: _____ ( ) Marks: ___/100

Class: Primary 5 ____

Date: 8 May 2007

Duration: 2h 15min

_____
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. Shade the correct oval on the Optical Answer Sheet (OAS).

1. What is the value of the digit '8' in 5 489 214?

(1) 8 000
(2) 80 000
(3) 800 000
(4) 8 000 000 ( )

2. Find the value of 6 – 3 x 2 + 2

(1) 12
(2) 2
(3) 8
(4) 4 ( )

3. John has $232 005. Round off this amount to the nearest ten thousand dollars.

(1) $220 000
(2) $230 000
(3) $232 000
(4) $240 000 ( )

86

4. Which of the following fraction is the **smallest**?

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

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

(3) $\frac{2}{9}$

(4) $\frac{2}{7}$ ( )

5. $\frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{2}{3} = \frac{2}{3} \times \square$

The missing number in the box is _____.

(1) 6
(2) 5
(3) 3
(4) 4 ( )

6. The height of Mrs Samad is about _____.

(1) 160 m
(2) 1.6 m
(3) 16 cm
(4) 1.6 cm ( )

8Y

7. In a class, $\frac{1}{3}$ of the pupils are Malays and $\frac{2}{5}$ of them are Chinese. What fraction of the class is made up of pupils from other races ?

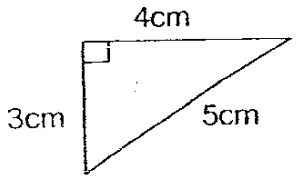
(1) $\frac{1}{6}$
(2) $\frac{2}{3}$
(3) $\frac{3}{4}$
(4) $\frac{4}{15}$ ( )

8. 15 : 3 : 27 = 5 : 1 : ☐

What is the missing number in the box?

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

9. Find the area of triangle shown below.



(1) 6 cm²
(2) 7.5 cm²
(3) 12 cm²
(4) 20 cm² ( )

88

10. How many 2-cm cubes can fill up a box measuring 2cm by 4cm by 6cm?

(1) 24
(2) 12
(3) 6
(4) 4

( )

11. $13 + 80 \square 40 \div 5 = 85$. What is the missing operation in the box?

(1) +
(2) −
(3) ×
(4) ÷

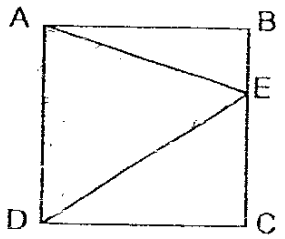
( )

12. $\frac{2}{3}$ of a number is 18. What is the number?

(1) 12
(2) 18
(3) 27
(4) 36

( )

13. ABCD is square.
Given that BC is 12 cm, what is the area of triangle AED?



8?

(1) 12 cm²
(2) 24 cm²
(3) 36 cm²
(4) 72 cm²

( )

14. The shortest side of a triangle is 4cm.
What is the perimeter of the triangle if the ratio of the 3 sides is 2 : 3 : 5 ?

(1) 10 cm
(2) 20 cm
(3) 30 cm
(4) 40 cm

( )

15. Leo and Mandy shared some game cards in the ratio of 7 : 3.
When Leo gave Mandy 16 game cards, he found that they each had the same number of cards. How many game cards did Mandy have at first?

(1) 56
(2) 28
(3) 24
(4) 12

( )

90

Nan Hua Primary School
Semestral Assessment 1 - 2007
Mathematics - Primary Five
Booklet B

Name: _____( ) Class: Pr 5 ____ Marks : _____/80

Section B (30 marks)

Questions 16 to 25 carry 1 mark each. Questions 26 to 35 carry 2 marks each. For each question from 26 to 35, 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. What is the sum of $2\frac{5}{9}$ and $1\frac{1}{3}$?

Ans : _____

17. Subtract $\frac{4}{7}$ from $4\frac{1}{2}$.

Ans: _____

18. How many quarters are there in $4\frac{1}{2}$?

Ans: _____

19. Complete this number pattern:

17, 18, 20, 23, ____ ____, 32

Ans : _____

20. What is $\frac{3}{10} \div 3$?

Ans: _____

21. Divide 2 340 by 15. Round off the quotient to the nearest 100.

Ans: _____

22. What is the volume of a cube of side 5 cm ?

Ans : _____ cm^3

23. Kitty had $6\frac{3}{4}$ kg of flour. She packed 75 g of it into each plastic bag and sealed each bag. How many bags did he use ?

P3

Ans: _____ bags

24. Use the following digits to form the **smallest** possible 5-digit number and the digit '5' must be in the **thousands** place.

1	2	5	9	0

Ans: _____

25. A and B are two different whole numbers whereby

$$\begin{array}{r} AB \\ \times\ AB \\ \hline 144 \\ \hline \end{array}$$

What is digit **A** ?

Ans : _____

26. What is the value of 1 + 2 + 3 + ... + 49 ?

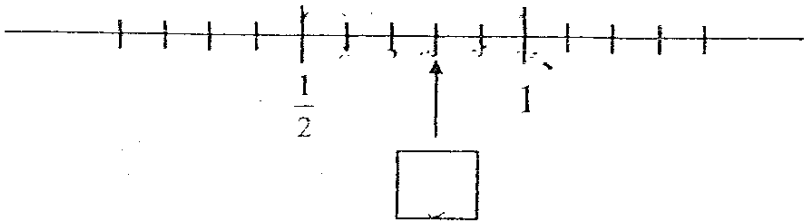
Ans:_____

27. 5 men can paint a house in 2 days. How many men are required to paint 2 such houses in a day?

94

Ans:_____ men

28. Fill in the missing fraction. Leave your answer in its simplest form.



Ans : _____

29. What fraction of 2ℓ is 100 mℓ? Give your answer in its simplest form.

Ans : _____

30. Express $2\frac{2}{3}$ h in hours and minutes.

Ans : _____ h _____ min

31. Express $\frac{12}{5}$ km in kilometres and metres.

85

Ans : _____ km _____ m

32. $\frac{2}{5}$ of the pupils in a school are girls.
If there are 800 girls, how many more boys than girls are there in the school?

Ans : _____ more

33. If a photocopier prints 400 sheets of paper in half an hour, how many sheets of paper can it print in 15 minutes?

Ans : _____ sheets

34. Tammy is $\frac{2}{5}$ of her mother's age. The sum of their ages is 70 years. How old is Tammy?

Ans : _____ yrs old

35. $\frac{3}{4}$ of a tank is filled when 24 litres of water are poured into it.
What is the capacity of the tank?

96

Ans : _____ ℓ

Section C (50 marks)

For each question from 36 to 48, 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.*

36. Susan had \$27. She spent $\frac{1}{3}$ of her money on food and $\frac{2}{3}$ of the remainder on transport. How much money had she left?

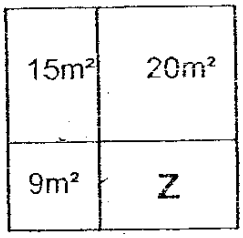
Ans: _____ [3]

37. I spent exactly \$1 for some 5¢ stamps and some 13¢ stamps. How many 5¢ stamps did I buy?

97

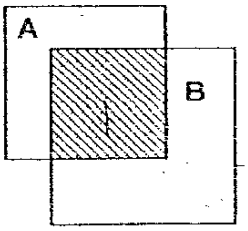
Ans: _____ [3]

38. The figure below, not drawn to scale, shows a rectangle divided into 4 parts. Find the area of Z.
(Hint: All the dimensions are in whole numbers)



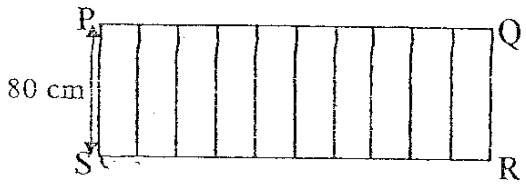
Ans : _____[3]

39. The figure below consists of 2 squares A and B overlapping each other. The ratio of area of square A to area of square B is 2 : 3 .
If $\frac{1}{3}$ of B is shaded, what is the ratio of the shaded part to the unshaded part ?



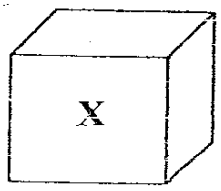
Ans: _____[3]

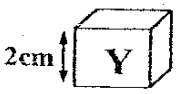
40. Rectangle PQRS has an area of 11 200 cm². If it can be divided into 10 equal rectangles as shown in the diagrams, what is the breadth of each of the 10 rectangles ? The figure is not drawn to scale.



Ans: _____ [3]

41.





The ratio of the volume of cube X to that of cube Y is 8 : 1.
What is their difference in volume?

99

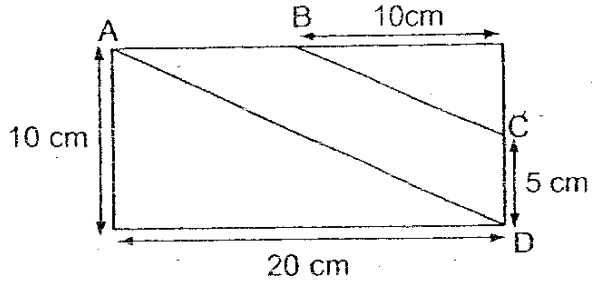
Ans: _____ [3]

42. After selling 40 ducks and buying 65 chickens, a farmer had 24 more ducks than chickens. If he had 159 ducks and chickens at first, how many ducks did he have at first?

/100

Ans : _____ [4]

43. Study the rectangle below. Express the area of ABCD as a fraction of the whole figure in the simplest form. The figure is not drawn to scale.



[0]

Ans: _____[4]

44. Jack and Kate shared some cards in the ratio of 5 : 4 In a game, Kate lost half of her cards to Jack. Jack then had 35 cards.

(a) How many cards did Kate lose to Jack ?
(b) How many cards did they have altogether ?

102

Ans: (a) _____ [2]

Ans: (b) _____ [2]

45. A total of 20 boys and girls sold tickets for a charity show. Each ticket was sold at $5. Each boy sold 5 tickets and each girl sold 3 tickets. If the amount collected by the boys was $20 more than the amount collected by the girls,

(a) how many girls were there in the group?

(b) how many tickets were sold altogether?

103

Ans: (a) _____ [3]

Ans: (b) _____ [2]

46. $\frac{1}{4}$ of May's savings was equal to $\frac{2}{5}$ of Alice's savings. However, when Alice increased her savings by $35 and May spent $67, they had equal amount of money in their savings. How much money did Alice have finally?

104

Ans:_____[5]

47. The seats in the auditorium of Eastside School are labelled as follows:

Front

Row 1:					1					
Row 2:				3		5				
Row 3:			7		9		11			
Row 4:		13		15		17		19		
Row 5:	21		23		25		27		29	

The rest of the seats follow the same pattern.

(a) I am in the middle seat of row 9. What seat am I in?

(b) Joe is in seat 65. What row is he in?

(c) Lou is in seat 169. What row is he in?

105

Ans: (a)_____ [1]

Ans: (b)_____ [2]

Ans: (c)_____ [2]

48. Alicia had some sweets. She kept $\frac{1}{2}$ the candies plus 6 sweets for herself. She gave the remaining to Benny. Benny kept $\frac{1}{2}$ of his share plus 7 sweets and gave the remainder to Carol. Carol ate $\frac{1}{3}$ of his share and had 8 sweets left.

(a) How many sweets did Carol get ?
(b) How many sweets did Alicia have at first ?

,06

Ans: (a) _____ [3]

Ans: (b) _____ [2]

End-of-Paper

Nan Hua Primary School

Primary 5 Maths SA1 Exam (2007)

Answer Keys

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

16. $3\frac{8}{9}$

17. $3\frac{13}{14}$

18. 18

19. 27

20. $\frac{1}{10}$

21. 100

22. $125cm^3$

23. 90 bags

24. 15029

25. 1

26. 1225

27. 20

28. $\frac{4}{5}$

29 $\frac{1}{20}$

30. 2hrs 40 mins

31. 2km 40m

32. 400 more

33. 200 sheets

34. 20 years old

35. 32ℓ

36. $\frac{1}{3}$ of \$27 = \$9 (food)

Left = \$9 x 2 = \$18

Total left = \$18 x $\frac{1}{3}$ = \$6

She had \$6 left.

37. I bought 0.75¢ stamps,

38. Big x small = $15m^2$
The only number are 5 & 3
Check = 5m x 3m = $15m^2$
If one side is 3m, then
3m x 3m = $9m^2$
If one side is 5m, then
5m x 4m = $20m^2$
3m x 4m = $12m^2$
The area of z is $12m^2$

39. $\frac{1}{3}$ of square B is shade
1 unit of square B = 1 unit of square A
We can tell = $\frac{1}{2}$ of square A is shaded

Shaded	:	Unshaded
1	:	3

The ratio is 1 : 3

40. PQRS breadth = 80cm
PQRS area = $11200cm^2$
Area of each small rect = $1129cm^2 \div 10 = 1120cm^2$
Breadth of each = 80cm x 14cm = $1120cm^2$
The breadth of each of the 10 rectangle is 14cm

41. Vol. of cubes y = 2cm x 2cm x 2cm = $8cm^3$
Difference in vol. = 7 x 8 = $56cm^3$
Their difference in volume is $56c^3$

42. 2 units = 159 − 65 − 24 − 40 = 30
1 unit = 15
Ducks at first = 15 + 65 + 24 + 40 = 144
The farmer had 144 ducks at first.

43. Area of the rect. = 10cm x 20cm = $200c^2$

Area of J = $\frac{1}{2}$ x 10cm x 10cm = $100cm^2$

Area of K = $\frac{1}{2}$ x 10cm x 5c = $25cm^2$

Areaof ABCD = $(200 - 200 - 100)cm^2$
= $75cm^2$

Fraction = $\frac{75}{200}$
= $\frac{15}{40}$
= $\frac{3}{8}$

The fraction is $\frac{3}{8}$

44a. 1 unit = 35 ÷ 7 = 5
Kate lost = 5 x 2 =10
Kate lost 10 cards

44b. Total cards = 9 x 5 = 45
They had 45 cards altogether.

45a. There were 12 girls in the group.

45b. Boys = 8 x 5 = 40
Girls = 12 x 3 = 36
36 + 40 = 76
76 tickets were sold altogether

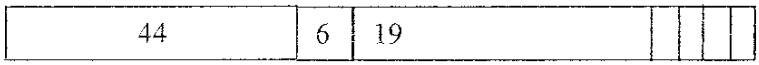
46. 3 units = $(35 + 67) = $102
1 unit = $102 ÷ 3 = $34
Alice finally had $34 x 5 = $205
Alice had $205 finally

47a. I am in seat 81

47b. Joe is in Row 8

47c. Lou is in Row 13

48a.



2 units = 8
1unit = 4
3u = 12
Corol got 13 sweets

48b. 12 + 7 = 19
19 + 19 + 6 = 44
44 + 44 = 88 sweets
Alicia had 88 sweets at first.

11