AI TONG SCHOOL

2006
CONTINUAL ASSESSMENT 1
PRIMARY 6

MATHEMATICS

DURATION : 2 H 15 MIN

DATE: 6 March 2006

INSTRUCTIONS

Do not open the booklet until you are told to do so.
Follow all instructions.
Answer all questions.

Name : _____( )

Class : Primary 6_____ **Marks:** 100

Parent's Signature : _____

Date : _____

Booklet A

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.

(20 marks)

1. Find the value of $9 \times 2 + 36 \div 4$

(1) 27
(2) 29
(3) 47
(4) 51

2. Express 3 years 8 months as a fraction of a year.

(1) $\frac{3}{8}$

(2) $\frac{3}{11}$

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

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

3. Alice, Ben and Cara shared a sum of money in the ratio 4 : 8 : 5. If Alice and Ben received \$84 more than Cara, how much money did Cara receive ?

(1) \$40
(2) \$60
(3) \$105
(4) \$140

4. If 24 pairs of jeans cost \$$q$. find the cost of 7 pairs of jeans.

(1) $\$\frac{q}{24}$

(2) $\$\frac{7q}{24}$

(3) $\$\frac{7q}{12}$

(4) $\$ 7q$

5. The ratio of the number of Suzie's stamps to Pat's stamps was 7 : 6. If Suzie gave Pat 5 stamps, they would have the same number of stamps. How many stamps did Pat have at first ?

(1) 10
(2) 30
(3) 60
(4) 70

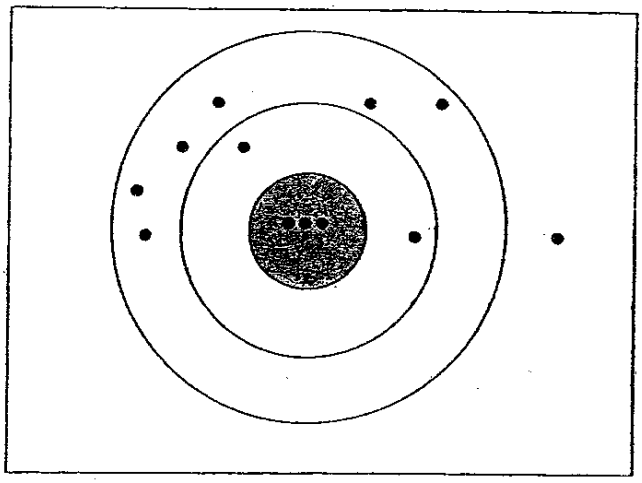
6. If $9b = 81$, then $3 \times 3b =$ _____

(1) 9
(2) 27
(3) 81
(4) 243

7. Maria went shopping with \$ 11 *w*. She bought a dress for \$ 4 *w*. She also bought a blouse that cost \$ *w* less than the dress. How much had she left ?

(1) \$ 3 *w*
(2) \$ 4 *w*
(3) \$ 6 *w*
(4) \$ 7 *w*

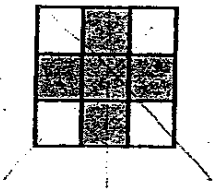
8.

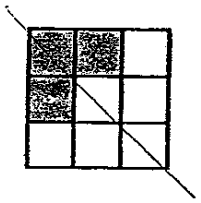


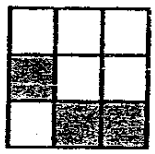
What percentage of Mr Rai's total rifle-shots on the target sheet shown above scored the bull's eye (the innermost shaded circle)?

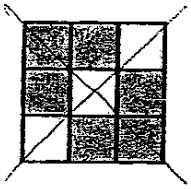
(1) 3 %
(2) 12 %
(3) 25 %
(4) 75 %

9. Which one of the following figures has **one** line of symmetry?

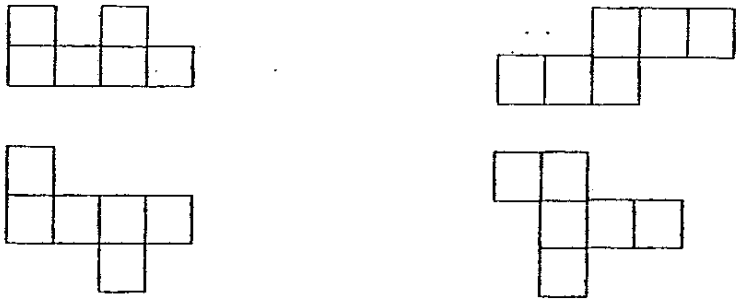
(1) 

(2) 

(3) 

(4) 

10. How many of the following nets can be folded into a cube?



(1) 1
(2) 2
(3) 3
(4) 4

11. Wei Ning is 14 years old now. Her mother is 3 times as old as she. Find the sum of their ages 3 years from now.

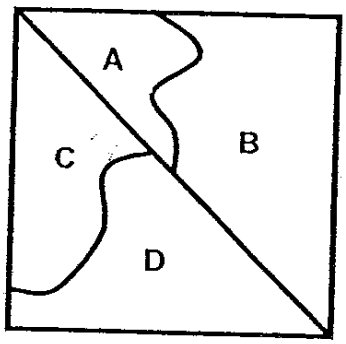
(1) 42 years
(2) 56 years
(3) 59 years
(4) 62 years

12. A tin full of flour weighs 10.5 kg. When it is $\frac{1}{2}$ full, it weighs 5.375 kg.

What is the weight of the empty tin ?

(1) 0.25 kg
(2) 0.5 kg
(3) 2.5 kg
(4) 2.56 kg

13.



The square above is divided into four sections, A, B, C and D.
The ratio of the area of A to the area of B is 1:3.
The ratio of the area of C to the area of D is 2:3.
What fraction of the whole figure is the area of A ?

(1) $\frac{1}{9}$

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

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

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

14. Jason took 3 tests. The average mark for the 3 tests was p. He obtained q marks in the first test and r marks in the second test. How many marks did Jason get in the third test ?

(1) $3 + p - q - r$

(2) $\frac{p+q+r}{3}$

(3) $3p - q + r$

(4) $3p - q - r$

15. Mr Li saves 10% of his salary. When his salary was increased by 10%, his savings rose proportionately to $165. What was his original salary ?

(1) $ 1 350
(2) $ 1 485
(3) $ 1 500
(4) $ 1 650

Name: _____ ( )

Class: Primary 6 _____

Booklet B

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. A piece of wire is 4 m long. It is used to form squares of sides 15 cm. How many such squares can be formed from that piece of wire ?

_____

17. How many $\frac{1}{8}$'s are there in $9\frac{1}{8}$?

_____

18. Express $3\frac{7}{18}$ as a decimal correct to the nearest hundredth.

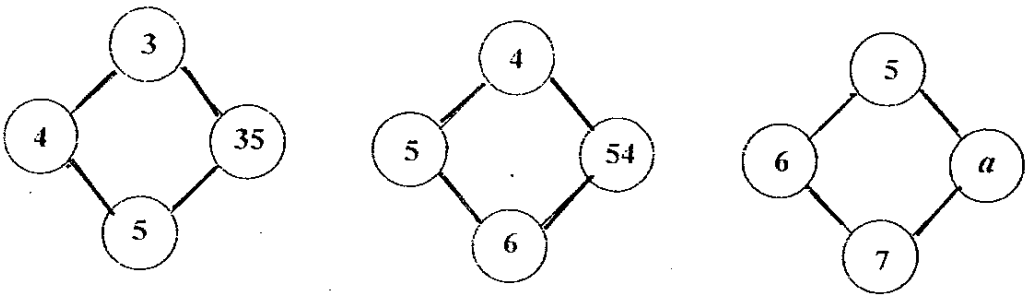
_____

19. In a basket there are apples, oranges and pears. The ratio of apples to oranges is 1 : 3 and the ratio of apples to pears is 2 : 9. Express the number of pears as a fraction of the total number of fruits in the basket.

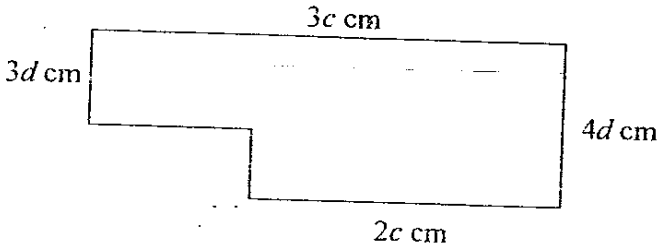
_____

4

20. Observe the pattern below and find the value of a.



21.



What is the perimeter of the above figure ? (Give your answer in the simplest form.)

_____ cm

22. Guoming thinks of a number n. He multiplies the number by 4 and subtracts the product from $10n$. What is Guoming's result ?

_____

3

7

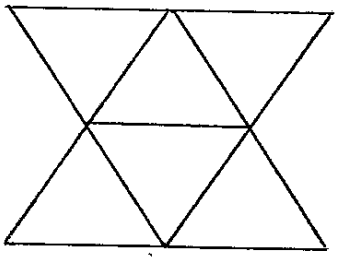
23. Fiona had \$23 in her savings. After getting \$ a from her mother, she spent all her money on 4 T-shirts. What is the cost of 1 T-shirts in terms of a.

\$_____

24. 400 pupils were asked to choose their favourite games. 26 % of them chose table tennis, 12 % basketball, 10 % badminton and the rest chose soccer. How many pupils chose soccer as their favourite game ?

_____

25. Shade **only** 4 triangular faces such that the net of a pyramid can be formed.



3

Questions 26 to 35 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

---

26. A bus driver has his salary increased by $110 this month. Now, he earns $8 040 in half a year. How much did he earn each month before his salary was increased ?

$ _____

27. A number when divided by 25, gives a quotient of 60 and a remainder of 13. What is the number ?

_____

28. Wilson bought 5 bags of rice weighing $\frac{7}{10}$ kg each and 2 packets of sugar weighing $\frac{3}{4}$ kg each. Find the total weight of the things he bought.

_____ kg

6

29. The capacity of a cup is 0.75 ℓ. It takes 18 such cups to fill a pail completely. What is the capacity of 5 such pails ? (Express your answer in ℓ)

_____ ℓ

30. The perimeter of a rectangle is 80 cm. Its length is three times its breadth. How much longer is its length than its breadth ?

_____ cm

31. Parcel A is $3\frac{1}{4}$ times as heavy as Parcel B. Parcel A is twice as heavy as Parcel C. Find the ratio of the weight of Parcel A to the weight of Parcel B to the weight of Parcel C.

_____

32. Express $2\frac{1}{2}$ % as a fraction in its simplest form.

_____

8

10

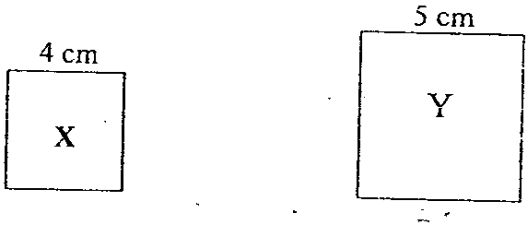
33. Huimin bought some packets of milk at $p each. She gave the cashier $q and received $r change. How many packets of milk did she buy ?

_____

34. Belinda spent 20% of her money on a dress. She spent $\frac{2}{5}$ of the remainder on a book. She had $ 72 left. How much money did she have at first ?

$_____

35. Harry drew 2 squares as shown.



How many times greater is the area of Square Y than the area of Square X ? (Express your answer in fraction)

_____

Name: _____( )

Class: Primary 6 _____

For questions 36 to 48, show your working clearly in the space below each question and write your answers in the spaces provided.
The number of marks available is shown in brackets [ ] at the end of each question or part-question. (50 marks)

---

36. Rosemary and Tessa shared $102. After Rosemary was given another $3, she had twice as much money as Tessa. How much money had Tessa?

Answer _____[3 m]

37. There were an equal number of red and white roses in a flower shop. After 46 red roses had been sold, three times as many white roses as red roses were left. How many roses were there in the shop at first ?

Answer :_____[4 m]

7

12

38. Kenny collected 60 packets of 12 digimon cards each. He gave away some and put the rest equally into 18 albums. If each album contained 36 cards, how many cards did he give away ?

Answer: _____ [4 m]

39. The total height of 6 men in a room is 10.24 m. If the average height of 5 of the men is 1.71 m, find the height of the last man.

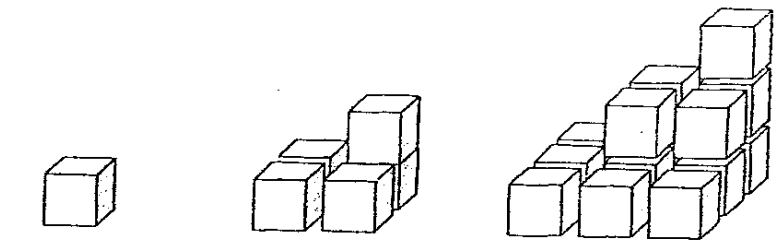
Answer : _____ [3 m]

7

40. During a physical fitness test, Jason jogged $\frac{5}{9}$ of the distance, walked $\frac{1}{4}$ of the remainder and sprinted the last 600 m. What was the distance he covered altogether ?

Answer : _____ [4 m]

41. The patterns below are formed with cubes.



(a) How many cubes are needed to form Pattern 4?

(b) How many cubes are there at the base (the bottom most layer) of Pattern 100 ?

Answer : (a) _____ [1m]

(b) _____ [2m]

42. Kai Xing and Shirlyn went shopping together. After spending $\frac{5}{8}$ of her money, Kai Xing found that she had \$90 left. Shirlyn spent twice as much as Kai Xing and had $\frac{1}{4}$ of her money left. How much did they bring in all for their shopping ?

Answer :_____[4m]

43. A sum of money was first divided among Alvin, Bob and Colin in the ratio 3 : 2 : 4. Alvin then gave Colin some of his money such that the ratio of Colin's money to Alvin's money became 11 : 3. If Alvin had \$ 960 left, find Bob's share.

Answer :_____[4m]

8

15

44. Faye has \$8y. After paying for 2 notebooks at \$y each and 4 marker pens at \$2 each, she has enough money to pay for 5 boxes of thumbtacks.

(a) What is the price of each box of thumbtacks in terms of y ?
(b) If y = 3, what is the cost of each box of thumbtacks ?

Answer: (a)_____ [2m]

(b)_____ [2m]

45 Cindy is given a certain amount of money to buy some greeting cards. If she buys 8 cards, she will be left with \$16. If she buys 12 cards, she will need \$8 more.

(a) What is the cost of 1 card ?
(b) How much money does Cindy have at first ?

Answer: (a) _____ [2m]

(b) _____ [2m]

8

16

46. 20 % of the people at a party were adults. 75 % of the children were boys. There were 72 more boys than girls. Halfway through the party, some boys left. After that, 20 % of the remaining people at the party were boys.

(a) How many boys were there at the beginning of the party ?
(b) How many boys left the party halfway ?

Answer : (a)_____[2m]

(b)_____[2m]

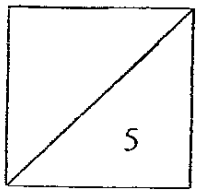
47. A fruit seller had papayas and mangoes for sale. 40% of the fruits were papayas. The price of a papaya was $2 while that of a mango was $3. He sold all his fruits and collected a total of $ 1 560. How many papayas were there at first ?

Answer _____[4m]

8

48. Ten years ago, the ratio of Joshua's age to Philip's age was 5 : 2. The ratio is 5 : 3 now. What will be the ratio ten years later ?

Answer:_____[5m]



~~ End of Paper ~~

♠Please check your work carefully♠

Ai Tong Primary School

Primary 6 Maths CA1 Exams (2006)

Answer Sheets

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

16. **6 squares**

17. 73

18. **3.39**

19. $\frac{9}{17}$

20. 77

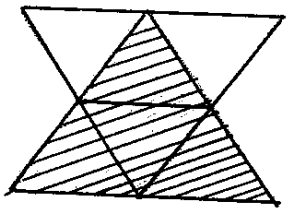
21. **3c + 3c + 4d + 4d**
= 6c + 8d

22. **n x 4 = 4n**
10n − 4n = 6n

23. $\$\frac{(23+a)}{4}$

24 **208 pupils**

25.



26.	**8040 ÷ 6 = 1340** **1340 − 110 = $1230**	27.	**60 x 25 = 1500** **1500 + 13 = 1513**
28.	**5 x** $\frac{7}{10}$ **= 3.5** **2 x** $\frac{3}{4}$ **= 1.5** **37.5 + 1.5 = 5kg**	29.	**0.75ℓ x 18 = 13500mℓ** **13500mℓ x 5 = 67500mℓ** **= 67.5ℓ**

30.	**L : B** **3 : 1** **80 ÷ 8 = 10** **3 – 1 = 2** **2 x 10 = <u>20cm</u> (Ans)**	**31.**	**13 : 4 : 7.5** **<u>26 : 8 : 13</u> (Ans)**
32.	$2\frac{1}{2}$ **= 25%** $\frac{2.5}{100} = \frac{25}{1000}$ $= \frac{1}{4}$ **(Ans)**	**33.**	$\frac{(q-r)}{p}$ **packets of milk (Ans)**
34.	**100 – 20 = 80%** $1 - \frac{2}{5} = \frac{3}{5}$ $\frac{3}{5}$ **x 80% = 48%** **48% = $72.00** **100% = 72 ÷ (48 x 100)** **= <u>$150.00</u> (Ans)**	**35.**	**4 x 4 = 16** **5 x 5 = 25** **25 ÷ 16 =** $1\frac{9}{16}$ **(Ans)**
36.	**$(102 + 3) = $105** **$105 ÷ 3 = <u>$35</u> (Ans)** **She had $35.00**	**37.**	**2u = 46** **6u = <u>138</u> (Ans)** **There were 138 roses**
38.	**60 x 12 = 720** **36 x 18 = 648** **720 – 648 = 72** **He gave away <u>72 cards</u> (Ans)**	**39.**	**1.71 x 5 = 8.55** **10.24 – 8.55 = <u>1.69</u> (Ans)** **His height is 1.69m**

40.

$1 - \frac{5}{9} = \frac{4}{9}$

$\frac{1}{4} \times \frac{4}{9} = \frac{1}{9}$

$\frac{4}{9} - \frac{1}{9} = \frac{3}{9}$

3u = 600m

9u = 600 ÷ (3 x 9)

= <u>1800m</u> (Ans)

He covered 1800m

41a.

1 x 1 = 1

2 x 2 = 4

3 x 3 = 9

4 x 4 = 16

1 + 4 + 9 + 16 = <u>30 cube</u> (Ans)

41b.

100 x 100 = 10000 cube

42.

$1 - \frac{5}{8} = \frac{3}{8}$

3u = 90

1u = 30

8u = 240 (KX at first)

= 5 x 2 = 10

10u = 300

$1 - \frac{1}{4} = \frac{3}{4}$

3u = 300

1u = 100

4u = 400 (S at first)

= 400 + 240

= <u>640</u> (Ans)

They bought $640

43.

<u>Before</u>	<u>After</u>
A : C	C : A
3 : 4	11 : 3

<u>After</u>	<u>Before</u>
3u = $960	7u = $4480
14u = $4480	1u = $ 640
	2u = $1280

44a.

8y − y − y = 6y

4 x $2 = $8

$= \$\frac{(6y-8)}{5}$ (Ans)

The price is $\$\frac{(6y-8)}{5}$ (Ans)

44b.

$\frac{6(3)-8}{5} = \frac{18-8}{5}$

$= \frac{10}{5}$

= 2

The cost <u>$2.00</u> (Ans)

45a.

12 − 8 = 4

16 + 8 = 24

24 ÷ 4 = 6

The cost if $6.00 (Ans)

45.

6 x 8 = 48

15 + 16 = 64

Cindy had <u>$64.00</u> at first. (Ans)

46a. (75 – 25)% = 50%
50% = 72
75% = 108 boys

46b. 80% = children

$$\text{Boys} = \frac{75}{100} \times 80$$

$= 60\%$
60% = 108
100% = 108
80% = 72
20% = 18
= 108 – 18
= <u>90 boys</u> (Ans)

47.

\$2 : \$3	
P : M	
40 : 60	1560
2 : 3	(2 x \$2) + (3 x \$3)

$$= \frac{1560}{(\$4 + \$9)}$$

= 120 sets
= 120 x 2
= <u>240 papayas</u>. (Ans)

48.

<u>10 years ago</u>	<u>Now</u>	<u>10 years later</u>
J : P	J : P	J : P
5 : 2	5 : 3	10 : 7
10 : 4	10 : 6	
20 : 8	15 : 9	
25 : 10	20 : 12	
	25 : 15	

15u – 10u = 5u
5u = 10y
1u = 2y
15u = 30y (J)
9u = 18y (P)
30y + 10y = 40y
18 + 10 = 28 (P)
40 : 28 = 10 : 7 (Ans)