AI TONG SCHOOL

2010

SEMESTRAL ASSESSMENT 1

PRIMARY 5

MATHEMATICS
Paper 1

DURATION : 50 min

DATE : 11 MAY 2010

INSTRUCTIONS
Do not open the booklet until you are told to do so.
Follow all instructions.
Answer all questions.
You are not allowed to use a calculator.

Name : _____ ( )

Class : Primary 5 (_____)

Paper 1		40
Paper 2		60
Total		100

Parent's Signature: _____

Date : _____

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   What is the best estimate for $352 \div 28$?

   (1) $300 \div 30$

   (2) $360 \div 30$

   (3) $350 \div 20$

   (4) $360 \div 20$

2    $333\,333 = 300\,000 + 30\,000 + 3000 + \boxed{}$
     What is the missing number in the box?

   (1)   333

   (2)   303

   (3)   3

   (4)   33

3   In which number below does the digit 7 have the smallest value?

   (1)   175 625

   (2)   261 706

   (3)   397 124

   (4)   710 543

4   $\dfrac{5}{9} \div 7$ is the same as _____.

    (1) $\dfrac{5}{9} \div \dfrac{1}{7}$

    (2) $\dfrac{5}{9} \times \dfrac{7}{1}$

    (3) $\dfrac{5}{9} \times \dfrac{1}{7}$

    (4) $\dfrac{9}{5} \times \dfrac{1}{7}$

5   $\dfrac{1}{4}$ of a number is 24. What is the number?

    (1)   6

    (2)   12

    (3)   48

    (4)   96

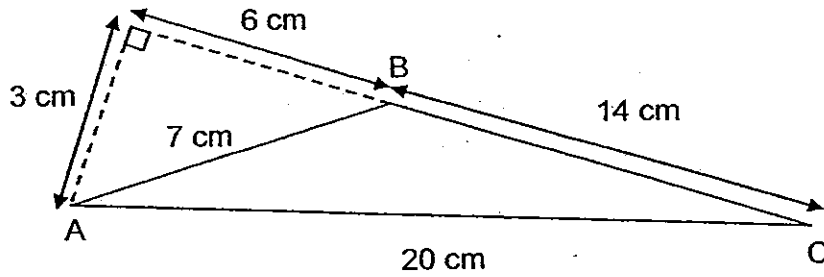6   Sean had some sweets. After he ate 9 sweets, he had 45 sweets left. What fraction of his sweets did he eat?

    (1) $\dfrac{1}{5}$

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

    (3) $\dfrac{4}{5}$

    (4) $\dfrac{5}{6}$

7

Find the area of the triangle ABC.

(1)   21 cm²

(2)   30 cm²

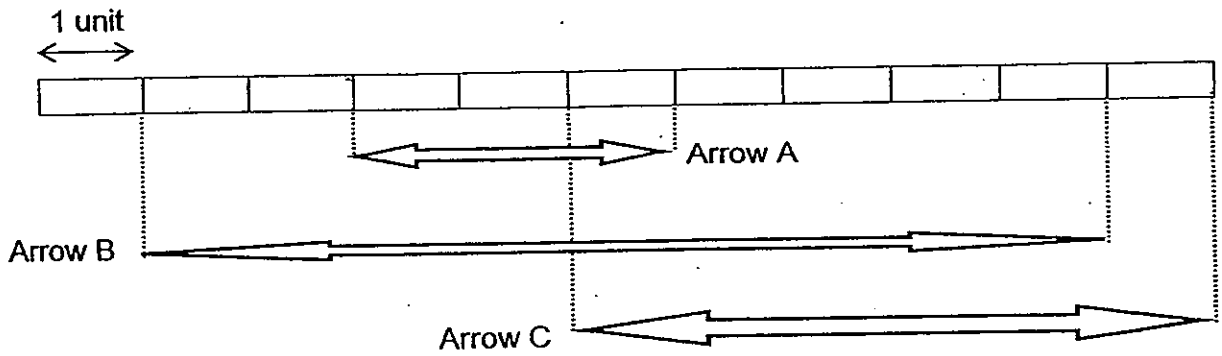(3)   49 cm²

(4)   70 cm²

8   Find the value of $56 + 32 \div 8 - 2 \times 5$.

(1)   21

(2)   45

(3)   50

(4)   56

9   The length and the breadth of a rectangle are 8 cm and 6 cm respectively. Find the ratio of its length to its perimeter.
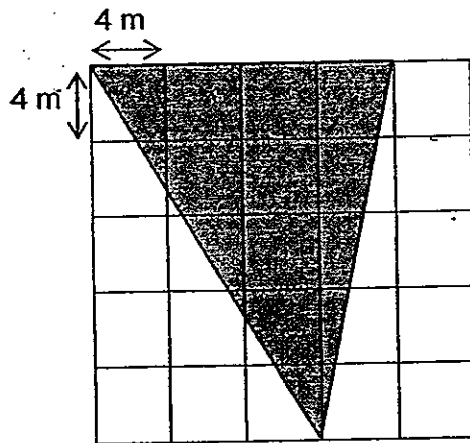
(1)   1 : 6

(2)   2 : 7

(3)   3 : 4

(4)   4 : 7

10   1 unit

The ratio of the length of Arrow C to Arrow B to Arrow A is _____ : _____ : _____ .

(1)   2 : 3 : 1

(2)   1 : 3 : 2

(3)   3 : 1 : 2

(4)   2 : 1 : 3

11

The shaded triangle is drawn on a square grid. What is the area of the **shaded** figure above?

(1)   480 m²

(2)   240 m²

(3)   160 m²

(4)   80 m²

12 Ellie has $\frac{1}{3}$ as many paper clips as Frank and twice as many as Gillian. Which one of the following statements is correct?

    (1)   Frank has 6 times as many paper clips as Ellie. ✗

    (2)   Gillian has $\frac{1}{3}$ as many paper clips as Frank ✗

    (3)   Gillian and Ellie have $\frac{1}{2}$ as many paper clips as Frank.

    (4)   Frank has $\frac{1}{2}$ as many paper clips as Gillian.

13 Find the area of the **unshaded** part in the rectangle below. The figure is not drawn to scale.

5 cm

12 cm
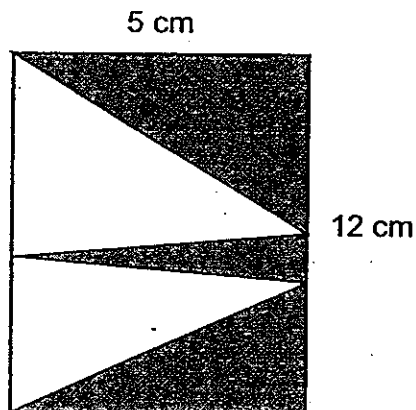
    (1)   60 cm²

    (2)   40 cm²

    (3)   30 cm²

    (4)   24 cm²

14 After a roll of wire was used to make 6 identical squares of sides 9 cm, there were 38 cm of wire left. How long was the roll of wire at first?

(1) 92 cm

(2) 216 cm

(3) 254 cm

(4) 524 cm

15 $\frac{1}{2}$ of Rachel's age is equal to $\frac{3}{4}$ of Sam's age. What is the ratio of Sam's age to Rachel's age?

(1) 3 : 1

(2) 3 : 2

(3) 2 : 3

(4) 2 : 1

Questions **16 to 25** carry 1 mark each. Write your answers in the space provided.
For questions which require units, give your answers in the units stated.   (10 marks)

16   Arrange the numbers below to form the smallest 5-digit number which is divisible by 2.

$$\boxed{0}\ \boxed{3}\ \boxed{7}\ \boxed{6}\ \boxed{5}$$

Ans: _____

17   2 ℓ of paint are needed to paint an area of 5 m². How much paint is needed to paint a wall that is 3 m long by 10 m high?
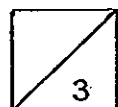
Ans: _____ ℓ

18   Mrs Lim bought 3 ℓ of apple juice. She drank $\frac{1}{5}$ ℓ of apple juice daily. How many days did she take to finish all the apple juice?

Ans: _____ days

19   $\boxed{} - 4\dfrac{4}{5} = 7\dfrac{1}{3}.$

What is the missing fraction? Express your answer in the simplest form.

Ans: _____

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20   One packet of flour weighs 840 g. What is the mass of 16 packets of flour? Round off your answer to the nearest kilogram.

Ans: _____ kg

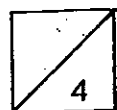21   Express the ratio of $3 to 50 cents in the simplest form.

Ans: _____

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22   The mass of Adam, Ben and Charles is in the ratio 3 : 2 : 4. If Ben's mass is 18 kg, what is the total mass of Adam and Charles?

Ans: _____ kg

4

23 $18 \times \dfrac{8}{9} = \dfrac{8}{9} \times \boxed{} + \dfrac{8}{9} + \dfrac{8}{9} + \dfrac{8}{9}$

Ans: _____

24

The rectangle shown above is divided into 12 smaller triangles of the same size. How many more triangles have to be shaded so that $\dfrac{3}{4}$ of the rectangle is shaded?
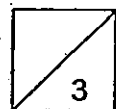
Ans: _____

25
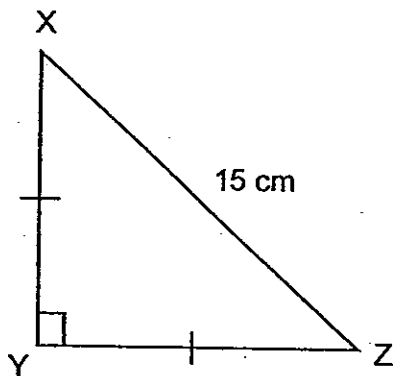
The perimeter of triangle XYZ which is not drawn to scale is 35 cm. XY = YZ. What is the area of triangle XYZ?

Ans: _____ cm²

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 space provided.
For questions which require units, give your answers in the units stated.   (10 marks)

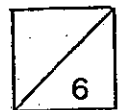26   What is the product of all the common factors of 30 and 48?

Ans: _____

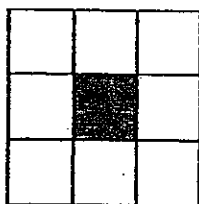27   When a number is divided by 6, the quotient is 472. What is the quotient when the same number is divided by 8?

Ans: _____

28    $\frac{1}{4}$ of Mrs Wong's fish tank was filled with water. She topped up the tank with 21 ℓ of water and the tank became $\frac{5}{8}$ full. What is the capacity of the tank?
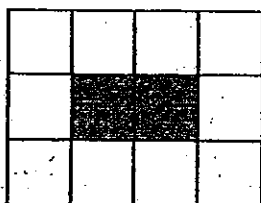
Ans: _____ ℓ

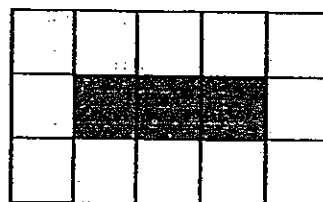29   If this pattern continues, how many white squares are there in pattern 24?
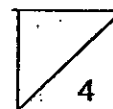
Pattern 1   Pattern 2   Pattern 3

Ans: _____

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30   Hazel and her 5 friends shared a pizza equally for dinner. If Hazel gave away
      $\frac{2}{3}$ of her share, what fraction of the pizza had she left?

Ans: _____

AI TONG SCHOOL

2010

SEMESTRAL ASSESSMENT 1

PRIMARY 5

MATHEMATICS
Paper 2

DURATION : 1 h 40 min

DATE : 11 MAY 2010

INSTRUCTIONS
Do not open the booklet until you are told to do so.
Follow all instructions.
Answer all questions.
You are allowed to use a calculator.

Name : _____ ( )

Class : Primary 5_____   Marks:

Paper 2	/ 60

Parent's Signature :_____

Date :

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.
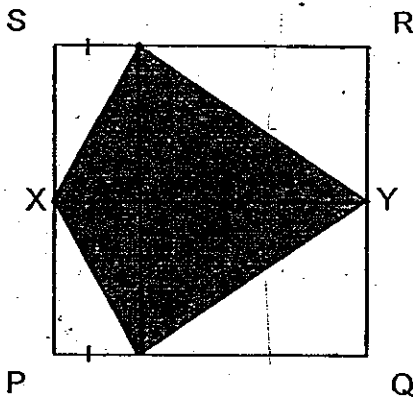For questions which require units, give your answers in the units stated.   (10 marks)

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1   Chelsea has 588 stickers and Sarah has 208 stickers. How many stickers must Chelsea give to Sarah so that they each have the same number of stickers?
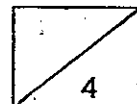
Ans: _____

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2   PQRS is a square. X and Y are the midpoints of SP and RQ respectively. What fraction of the square is the shaded part?
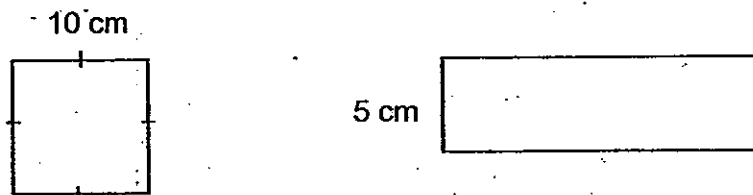

Ans: _____

4

3    $\frac{2}{5}$ of Jamie's money is equal to $\frac{1}{2}$ of Chermaine's money. What fraction of the total amount of money is Jamie's money?

Ans: _____

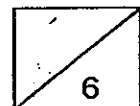4   John had $\frac{3}{7}$ of his salary left after giving his parents $880. How much was his salary?

Ans: $_____

5

10 cm

5 cm

The ratio of the area of the square to that of the rectangle is 5 : 4.
What is the length of the rectangle?

Ans: _____ cm

6

For questions **6** to **18**, show your working clearly in the space provided for each question and write the answers in the spaces provided.
The number of marks available is shown in the brackets [ ] at the end of each question or part-question.

(50 marks)

6   Alex and Brendon had a total of 60 marbles. After their father gave Brendon another 6 marbles, Alex had five times as many marbles as Brendon. How many marbles had Alex at first?

Ans: _____ [3]

7   A farmer bought 8 packets of rose seeds. There are 16 seeds in each packet. The farmer wants to plant the seeds round the perimeter of his square field, sowing the same number of seeds on each side of the square field. How many seeds will there be on each side of the square field?

Ans: _____ [3]

6
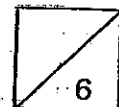
8. A container weighs 27 kg when filled with Substance X. The same container weighs 18 kg when filled with Substance Y. If Substance X is thrice as heavy as Substance Y, how heavy is the container when it is empty?
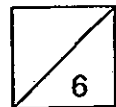
Ans: _____[3]

9. There are 160 children in the gymnasium. $\frac{3}{4}$ of them are girls and the rest are boys. When 32 more girls enter the gymnasium, what fraction of the children are boys in the end? (Express your answer in the simplest form)

Ans: _____[3]

6

10 Mrs Tan has more than 120 cookies. If she puts them into packets of 7, she has 5 cookies left. If she puts them into packets of 9, she has 1 cookie left. What is the least number of cookies Mrs Tan has?
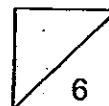
Ans: _____ [3]

11 A box contained some green pens and blue pens in the ratio 7 : 2. After removing 22 green pens and putting in 18 blue pens, there is now an equal number of green and blue pens in the box. How many green pens were in the box at first?

Ans: _____ [3]

12 Aisha has 9 times as much money as Meili. If Aisha has $1080, how much must she give to Meili so that Meili will have $\frac{1}{2}$ of what she has?
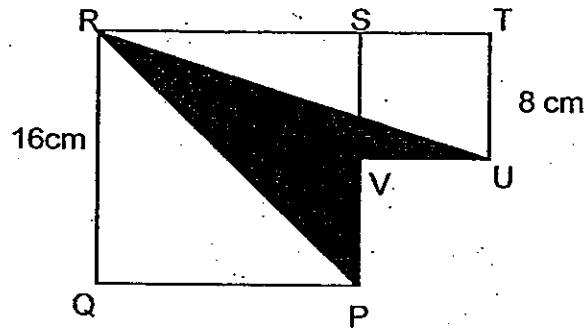
Ans: _____ [4]

13 Four containers A, B, C and D contained a total of 230 buttons at first. Then the number of buttons in A was increased by 55, the number in B was decreased by 15, the number in C was doubled and the number in D was halved. As a result, the number of buttons in each container was the same. Find the number of buttons in container D at first.
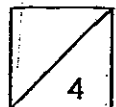
Ans: _____ [4]

8
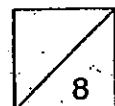
14   The figure below, not drawn to scale, is made up of two squares PQRS and STUV.
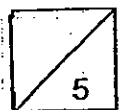   Find the shaded area.

Ans: _____ [4]

15   Sandra had twice as many apples as oranges at first. She removed 4 apples and 3 oranges each time. In the end, there were 18 apples and 1 orange left. How many fruits did Sandra have at first?

Ans: _____ [5]

16 In Sunshine Home, the ratio of the number of men to the number of women is 4 : 1.
    In Joyful Home, the ratio of the number of men to the number of women is 2 : 3.
    Sunshine Home has twice as many people as Joyful Home.

(a) Find the ratio of the number of men in Sunshine Home to the number of
       women in Joyful Home.

(b) After 40 women left Sunshine Home to join Joyful Home, the ratio of the
       number of men to the number of women in Joyful Home becomes 1 : 2.
       How many women are there in Joyful Home in the end?
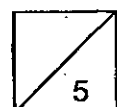
Ans: a) _____ [2]

b) _____ [3]

5
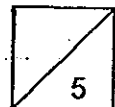
17   4 boys and 2 girls sold 2400 tickets at a fun fair. The 2 girls sold twice as many
      tickets as the 4 boys. Each boy sold the same number of tickets. The first girl sold 3
      times as many tickets as the second girl.

      (a) How many tickets did each boy sell?

      (b) How many tickets were sold by the first girl?
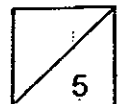
                                                    Ans: a) _____[3]

                                                        b) _____[2]

18 Benjamin spent $\frac{1}{4}$ of his salary on books and $\frac{3}{5}$ of the remainder on a computer. He then spent $180 on food and $100 on transport. He gave the remaining $260 to his mother. How much was his salary?
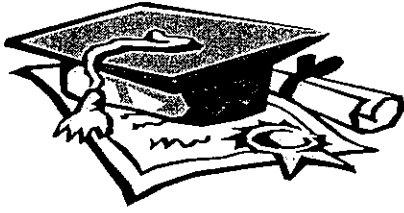
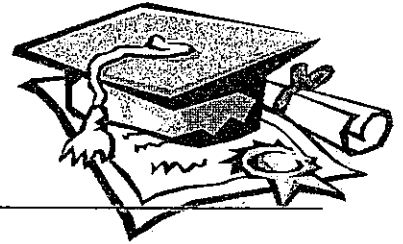Ans: _____ [5]

End of Paper

— CHECK YOUR WORK CAREFULLY —

ANSWER SHEET

EXAM PAPER 2010

SCHOOL : AI TONG PRIMARY
SUBJECT : PRIMARY 5 MATHEMATICS

TERM : SA1

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

16)30576   17)12L   18)15days   19)12 2/15   20)13kg

21)6:1   22)63kg   23)15   24)5   25)50cm2

26)36   27)354   28)56L   29)54   30)1/18

Paper 2

1)588 − 208 = 380 380 ÷ 2 = 190	2)1 ÷ 2 = ½
3)5 + 4 = 9 5 ÷ 9 = 5/9	4)880 ÷ 4 = 220 220 x 7 = $1540
5)100 ÷ 5 x 4 = 80cm 80 ÷ 5 = 16cm	6)60 + 6 = 66 66 ÷ 6 = 11 11 − 6 = 5 60 − 5 = 55
7)8 x 16 = 128 128 ÷ 4 = 32 32 + 1 = 33	8)27 − 18 = 9kg 9 ÷ 2 = 4.5kg 18 − 4.5 = 13.5kg
9)160 ÷ 4 = 40 40 x 3 = 120 120 + 32 = 152 160 + 32 = 192 192 − 152 = 40 40 ÷ 192 = 5/24	10)145 ÷ 7 = 20R5 145 ÷ 9 = 16R1 20 x 7 + 5 = 145 16 x 9 = 1 = 145

11) 22 = 18 = 40
  40 ÷ 5 = 8
  8 x 7 = 56
	12) 1080 ÷ 9 = 120
	  120 x 10 = 1200
	  1200 ÷ 3 = 400
	  400 − 120 = $280

13) 230 − 15 + 55 = 270
  270 ÷ 9 = 30
  30 x 4 = 120
	14) 16 x 16 = 256cm$_2$
	  8 x 8 = 64cm$_2$
	  256 + 64 = 320cm$_2$
	  ½ x 16 x 16 = 128cm$_2$
	  ½ x 8 x 24 = 96cm$_2$
	  320 − 128 − 96 = 96cm$_2$

15) 8 x 7 = 56
  56 + 18 + 1 = 75
	16) a) 8 : 3
	  b) 160

17) a) 2 x 2 = 4
  2400 ÷ 3 = 800
  800 ÷ 4 = 200
  b) 800 x 2 = 1600
  1600 ÷ 4 = 400
  400 x 3 = 1200
	18) 1 − ¼ = ¾
	  ¾ x 3/5 = 9/20
	  ¼ + 9/20 = 14/20
	  180 + 100 + 260 = $540
	  540 ÷ 6 = $90
	  90 x 20 = $1800