NANYANG PRIMARY SCHOOL

FIRST CONTINUAL EXAMINATION 2011

PRIMARY 6

MATHEMATICS

PAPER 1

DURATION: 50 MINUTES

Booklet A	/ 20
Booklet B	/ 20

Paper 1 Total:
/ 40

Name: _____ (   )

Class: Primary 6 (   )

Date: _____

Parent's Signature:_____

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

YOU ARE **NOT** ALLOWED TO USE A CALCULATOR.

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)

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1   Simplify $15p - 5p + 4p \div 2$.

(1) $3p$

(2) $7p$

(3) $8p$

(4) $12p$

2   63.42×10 is the same as _____.

(1)   0.6342

(2)   6.342

(3)   63.42

(4)   634.2

3 Find the value of $5 \times 20 - (2 + 8) \div 2$.

    (1)   25

    (2)   45

    (3)   75

    (4)   95

4 The following fractions are arranged in ascending order.

$$\frac{3}{5} \quad B \quad , \quad \frac{9}{10}$$

Which one of the following fractions can be a possible value of B?

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

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

    (3) $\dfrac{4}{7}$

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

5   What is the missing fraction in the box?

$$\frac{5}{8} = 1 - \frac{2}{3} + \boxed{?}$$

(1) $\frac{7}{48}$

(2) $\frac{23}{48}$

(3) $\frac{7}{24}$

(4) $\frac{23}{24}$

6   Express $40 as a percentage of $160.

(1)   0.25%

(2)   2.5%

(3)   25%

(4)   250%

7 The table below shows the masses of 4 girls. Whose mass is the nearest to the girls' average mass?

Name	Mass (kg)
Sufen	50
Rozana	57
Mariam	63
Nora	66

(1) Sufen

(2) Rozana

(3) Mariam

(4) Nora

8 What is the missing number in the box?

$$15 \times \frac{2}{5} = 8 \times \frac{2}{5} + \frac{2}{5} + \frac{2}{5} + \frac{2}{5} \times \boxed{?}$$

(1) 7

(2) 6

(3) 5

(4) 4

4

9 $\frac{1}{2}$ of a pizza is cut into 4 equal pieces. What fraction of the whole pizza is each piece? Which one of the following expressions gives the correct answer?

(1) $\frac{1}{2} \times \frac{1}{4}$

(2) $2 \div \frac{1}{4}$

(3) $\frac{1}{2} \div \frac{1}{4}$

(4) $4 \div \frac{1}{2}$

10 Find the quotient when 7.8 is divided by 100.

(1) 0.0078

(2) 0.078

(3) 0.78

(4) 7.8

11 What is the value when 14 hundredths is subtracted from the sum of 8.79 and 5?

    (1)   3.65

    (2)   8.70

    (3)   12.39

    (4)   13.65

12 Study the number pattern below carefully.
What is the missing number in the box?

4 , 6 , 8 , 12 , 24 , 36 , [?] , 144, 480.

    (1)   48

    (2)   72

    (3)   96

    (4)   108

13 Mrs Loke bought $4\frac{3}{5}$ kg of crabs at Budget Supermarket. 1 kg of crabs cost $15. How much change would she get if she gave the cashier two $50 notes?

(1) $14

(2) $31

(3) $36

(4) $69

14 The table below shows the marks obtained by four pupils in Test 1 and Test 2.

Name	Test 1	Test 2
Ahmad	80	75
Dennis	80	96
Raj	80	64
Jin	80	100

Which pupil has his marks increased by 20% in Test 2 as compared to Test 1?

(1) Ahmad

(2) Dennis

(3) Raj

(4) Jin

15   Look at the set of numbers below.

$$2, \ 5, \ 12, \ 9, \ 10, \ 16$$

What number must be added to this set of numbers to increase the average to 11?

(1)   6

(2)   9

(3)   12

(4)   23

PAPER 1 (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)

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16   What is the place value of digit 3 in 902.31?

Ans: _____
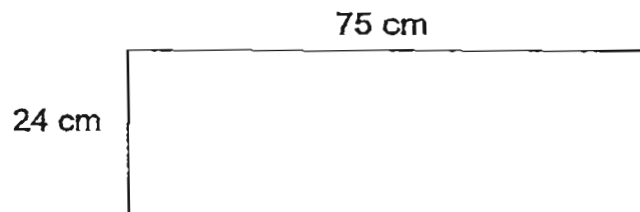
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17   What is 30% of $120?

Ans: $_____

---

18 Find the value of $\dfrac{10+2m}{2m}$ when $m=5$.

Ans: _____

---

19 What is the maximum number of 6-cm squares that can be cut out from the piece of paper as shown below?

75 cm

24 cm

Ans: _____

20   A washing machine cost $1240. Mrs Khoo purchased it under the instalment scheme. She paid a down payment of $580 and paid the rest of the money in monthly instalments of $110. How many months did she take to pay off the remaining sum of money by instalments?

Ans: _____

21   Doran saw an advertisement on hole-punchers at a stationery shop as shown below. What is the maximum number of hole-punchers that he could buy with $52?

3 for $7

1 for $2.50

Ans: _____

22 What is the missing number in the box?

$$\frac{5}{9} \text{ of } \frac{27}{35} = \boxed{?} \quad : 14$$

Ans: _____

---

23 A sack of sugar with a mass of 10 kg is repacked into smaller packets of $\frac{1}{5}$ kg each. How many such smaller packets of sugar are there?

Ans: _____

---

24 Yati poured 6 bottles of orange juice into an empty container. Each bottle contained 1.25 *l* of orange juice. How many litres of orange juice were in the container at the end?

Ans: _____ *l*

---

25 If 15% of a number is 60, what is the number?

Ans: _____

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 spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

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26 Peter takes $2\frac{1}{2}$ minutes to run one round on a circular track. At this rate, how many rounds will he complete if he runs for $\frac{1}{3}$ hour continuously without a break?

Ans: _____

---

27 Billy had 30% as many marbles as Chris. Chris had 125% as many marbles as Willie. If Willie gave Billy 70 marbles, Billy would then have 50% of what Chris had. How many marbles did the 3 boys have altogether?

Ans: _____

---

28 A group of 40 pupils took part in the Maths Olympiad competition. Their average score was 85 marks. The average score for the boys was 90 marks. The average score for the girls was 70 marks. How many girls participated in the competition?

Ans: _____

---

29 Observe the patterns in the sequence below. What is the missing algebraic expression in the box? Express your answer in terms of c.

5	4
$5a$	$2a$

$10b$	b
40	2

6	?
2	$5c$

Ans: _____

30 The table shows the monthly salary of 3 workers in a factory.

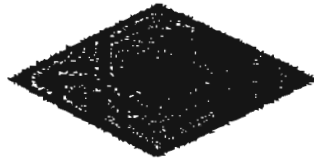| Name	Monthly salary ($)
Sundram	$540
Billy	$670
Rashid	$450

How much more money do Sundram and Billy earn together than Rashid in 10 months?

Ans: $_____

END OF PAPER 1

NANYANG PRIMARY SCHOOL

FIRST CONTINUAL EXAMINATION 2011

PRIMARY 6

MATHEMATICS

PAPER 2

DURATION: 1 HOUR 40 MINUTES

Paper 2 Total	/ 60
GRAND TOTAL	/ 100

Name: _____ ( )

Class: Primary 6 ( )

Date: _____

Parent's Signature:_____

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PAPER 2

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 Find the perimeter of the rectangle shown below.

$$1\frac{9}{10}\,m \qquad 2\frac{5}{8}\,m$$
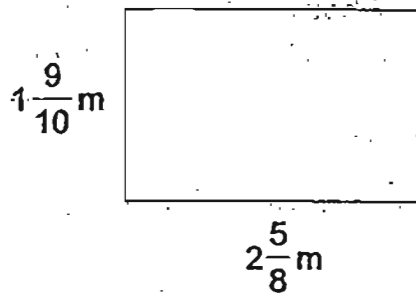
Ans: _____ m

---

2 Tammy packed 46 kg of chicken wings into 8 packets of equal mass. What was the mass of 1 packet of chicken wings? Round off your answer to 1 decimal place.

Ans: _____ kg

3   The usual price of a sari was $298.   After a discount, the price of the
     sari became $253.30.   What was the percentage discount for the sari?

Ans: _____%

4   Henry can wash a car in 2 hours.   Dolly can wash the same car in 3
     hours.   How long will it take Henry and Dolly to wash the same car
     together?

Ans: _____h

5   A factory produced a total of 5000 toy cars for the first 4 days.
     With the improved productivity of the workers subsequently, the factory
     managed to produce 1750 toy cars per day.   How many days did the
     factory take to produce 22 500 toy cars?

Ans: _____

For questions 6 to 18, show your working clearly in the space provided for 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)

---

6   Mrs Kaur and Mrs Yap went shopping together. Mrs Kaur had $21h more than Mrs Yap. After Mrs Kaur spent $85h, Mrs Yap had 5 times as much money as Mrs Kaur.

   (a) Express the amount of money that Mrs Kaur had at first in terms of h.

   (b) If $h = 8$, find the amount of money that Mrs Kaur had left.

Ans: (a) _____ [2]

   (b) _____ [1]

7   Devi bought 2 identical rulers, 3 identical pens and 2 identical notebooks from Pop Bookstore. Her pen leaked and some ink smudged on her receipt. If the cost of each pen was $2 after rounding off to the nearest dollar, what was the highest possible cost of each notebook?

```
Pop Bookstore
Receipt No. 123

2 x Ruler        $ 2.20

3 x Pen          $    5

2 x Notebook     $    0

       Total     $17.95
```

Ans: _____ [3]

8   Two marbles were released at the same time and they started to roll towards each other from the opposite ends of a straight plank that was 380 cm long. Marble A travelled 70 cm while Marble B travelled 40 cm in the first second. Both marbles travelled 5 cm less than the previous distance in each subsequent second. How long did it take for the two marbles to meet?

Ans:_____ [3]

4

9 The mass of a bag of sugar is $\frac{3}{8}$ kg. The mass of a bag of flour is $\frac{4}{9}$ of the mass of the bag of sugar. If the mass of a packet of peanuts is $\frac{3}{5}$ of the mass of the bag of flour, what is the mass of the packet of peanuts?

Leave your answer in grams.

Ans: _____ [3]

10 In a sack of 42 shirts and shorts, 40% of the shirts and 50% of the shorts were soiled. If 24 shirts and shorts were clean, how many soiled shirts were there?

Ans: _____ [3]

11 Sally, Yiling and Ali shared a bag of beads. Sally received $\dfrac{3}{4}$ of the bag of beads and $\dfrac{3}{4}$ of a bead. Yiling received $\dfrac{3}{4}$ of the remaining bag of beads and $\dfrac{3}{4}$ of a bead. Ali received the last bead in the bag.

How many beads did Sally receive?

(No bead was to be divided in any way.)

Ans: _____ [4]

12   Leon bought some terrapins and guppies for a total of $96. He bought 3 times as many guppies as terrapins. He paid $30 more for the terrapins than for the guppies. Each terrapin cost $10.40 more than each guppy.

(a)   How many terrapins did he buy?

(b)   What was the cost of each guppy?

Ans: (a) _____ [3]

(b) _____ [1]

13 The mass of four sacks of rice, A, B, C and D were recorded. 3 sacks of rice were weighed at a time.

Sacks A, B and C weighed a total of 55 kg.
Sacks B, C and D weighed a total of 56 kg.
Sacks A, C and D weighed a total of 57 kg.
Sacks A, B and D weighed a total of 58.5 kg.

What was the total mass of Sack B and Sack D?

Ans: _____ [4]

14. At a 2-day seminar, each participant was charged $35 per day. On Day 1, the number of female participants was 70 fewer than the number of male participants. On Day 2, the number of male participants decreased by 20%, while the number of female participants increased by 10%. Given that there were 531 participants on Day 2, what is the total amount of money paid by all the participants on both days?

15 The sequence of the figures below is formed by unit squares.
Study the patterns carefully and answer questions (a), (b) and (c).
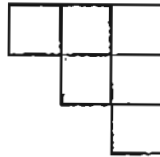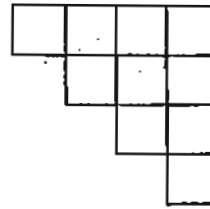

Figure 1   Figure 2   Figure 3

(a) How many unit squares are there in **Figure 5**?
Write your answer in the table below.

Figure	No. of unit squares
1	3
2	6
3	10
...	...
5	

[1]

(b) Which figure has a total of 36 unit squares?

(c) How many unit squares are there in **Figure 50**?

Ans. (b) _____ [1]

(c) _____ [2]

10

16 Sushila went shopping. She spent $588 on 2 dresses, 3 skirts and 2 pairs of sunglasses. The total amount spent on the dresses was 0.4 of the total amount spent on the skirts and sunglasses.

The total amount spent on the sunglasses was $\frac{1}{3}$ of the total amount spent on dresses and skirts.

(a) How much did she spend on the 2 pairs of sunglasses?

(b) What was the cost of the third skirt if the average cost of the other skirts was $88?

Ans: (a) _____ [3]

(b) _____ [2]

17   Jane and Iris had 255 sweets altogether.   Jane had 15 more sweets than Iris.   Jane gave away 25% as many sweets as Iris. She was left with twice as many sweets as Iris.

(a)   How many sweets did Iris give away?

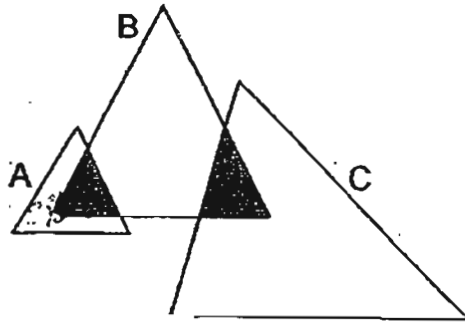(b)   How many sweets did Jane have in the end?

Ans: (a) _____ [4]

(b) _____ [1]

18   The figure below is made up of three triangles A, B and C.

50% of Triangle A is shaded.

$\frac{1}{4}$ of Triangle B is shaded.

20% of Triangle C is shaded.

The total area of Triangle A and Triangle B is ⸱ ⸱ of the area of Triangle C. Express the area of Triangle A as a fraction of the area of Triangle B.
Leave your answer in its simplest form.

Ans: _____ [5]

END OF PAPER 2

ANSWER SHEET

<u>EXAM PAPER 2011</u>

SCHOOL : NANYANG PRIMARY
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : CA1
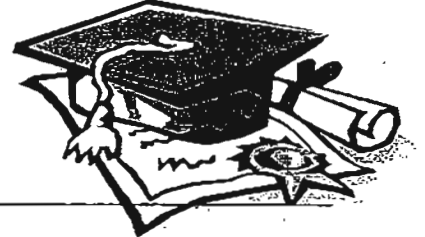
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
4	4	4	4	3	3	2	3	1	2	4	3	2	2	4

16)tenths   17)$36   18)2   19)48   20)6

21)22   22)6   23)50   24)7.50   25)400

26)8   27)735   28)10   29)30c   30)$7600

Paper 2

1)$1_{9/10} + 2_{5/8} + 1_{9/10} + 2_{5/8} = 9_{1/20}m$	2)$46 \div 8 = 5.75 \approx 5.8kg$
3)$298 \div 100 = \$2.98$ $\$298 - \$253.30 = \$44.70$ $\$44.70 \div \$2.98 = 15$ $1\% \times 15 = 15\%$	4)$1 \div 2 = \frac{1}{2}$ $1 \div 3 = 1/3$ $\frac{1}{2} + 1/3 = 5/6$ $1 \div 5/6 = 1_{1/5}h$
5)$22500 - 5000 = 17500$ $17500 \div 1750 = 10$ $10 + 4 = 14$	6)a)$\$85h - \$21h = \$64h$ $\$64h \div 4 = \$16h$ $\$16h \times 5 = \$80h$ $\$80h + \$21h = \$101h$ b)$\$101 \times 8 = \$808$ $\$808 - \$85 \times 8 = \$128$
7)$1p \rightarrow \$1.55 (\approx \$2)$ $3 \times \$1.55 = \$4.65$ $\$17.95 - \$2.20 - \$4.65 = \$11.10$ $\$11.10 \div 2 = \$5.55$	8) $1^{st} 70 + 40 = 110$ $380 - 110 = 270$ $2^{nd} 65 + 35 = 100$ $270 - 100 = 170$ $3^{rd} 60 + 30 = 90$ $170 - 90 = 80$ $4^{th} 55 + 25 = 80$ $80 - 80 = 0$ Ans: 4 seconds.

9)3/8 x 4/9 = 1/6
  3/5 x 1/6 = 1/10
  1/10kg = 100g
	10)24 x 2 = 48
	  48 − 42 = 6
	  20%-->6
	  40%-->12

11)1 + ¾ = 1¾
  1¾ x 4 = 7
  7 + ¾ = 7¾
  7¾ x 3 = 23¼
  23¼ + ¾ = 24
	12)a)5
	  b)$2.20

13)3A+3B+3C+3D→55+56+57+58.5
  = 226.5
  A+B+C+D→226.5 ÷ 3 = 75.5
  B→75.5 − 57 = 18.5
  D→75.5 − 55 = 20.5
  B+D→18.5 + 20.5 = 39kg
	14)8 units + 56 + 11 units→531
	  19 units→531 − 56 = 475
	  1 unit→25
	  10 units→250
	  250 + 70 = 320
	  250 + 320 + 531 = 1101
	  1101 x $35 = $38535

15)a)21
  b)36 − 21= 15
    15 − 7 = 8
    8 − 1 = 7
  c)51 + 3 = 54
    54 ÷ 2 = 27
    (51-3)+ 1 = 49
    49 x 27 = 1323
    1323 + 3 = 1326
	16)$588 ÷ 4 = $147
	  $147 x 3 = $441
	  $588 ÷ 14 = $42
	  $42 x 4 = $168
	  $441 - $168 = $273
	  $88 x 2 = $176
	  $273 - $176 = $97
	 a)$147
	 b)$97

17)a)60 b)120	18)3/22