NANYANG PRIMARY SCHOOL

FIRST CONTINUAL EXAMINATION 2012

PRIMARY 6

MATHEMATICS

PAPER 1

DURATION: 50 MINUTES

Booklet A	**/ 20**
Booklet B	**/ 20**

Paper 1 Total: / 40

Name: _____ ( )

Class: Primary 6 ( )

Date: 1st March 2012

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.

PAPER 1 (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)

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1 Simplify $8y - (6y \div 2) + 3$.

(1) $y + 3$

(2) $\frac{2y}{5}$

(3) $5y + 3$

(4) $8y$

2 Find the quotient when 100.3 is divided by 100.

(1) 0.1003

(2) 1.003

(3) 1003

(4) 10 030

3 Find the value of $65 \div 5 \times 2 - (24 \div 4 \times 3)$.

(1) 138

(2) 122

(3) 73

(4) 57

4 What is the missing number in the box?

$$\frac{14}{21} = \frac{\square}{12}$$

(1) 5

(2) 2

(3) 8

(4) 18

5 What is the missing fraction in the box?

$$\frac{2}{3} + \frac{1}{4} - \square = \frac{5}{6}$$

(1) $\frac{1}{6}$

(2) $\frac{1}{12}$

(3) $\frac{5}{12}$

(4) $\frac{11}{12}$

6 What percentage of 2 m is 55 cm?

(1) 27.5%

(2) 55%

(3) 72.5%

(4) 110%

7 What is the average length of 4 poles if their lengths are 56 cm, 32 cm, 60 cm and 72 cm?

(1) 32 cm

(2) 55 cm

(3) 72 cm

(4) 220 cm

8 What is the missing number in the box?

$$\frac{6}{7} \times 18 = \frac{6}{7} + \frac{6}{7} + 21 \times \frac{6}{7} - \frac{6}{7} \times \square$$

(1) 23

(2) 5

(3) 3

(4) 4

9 String A is thrice as long as String B. The total length of the two strings is $\frac{3}{4}$ m. Which one of the following expressions gives the length of String B?

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

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

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

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

10 The mass of 100 bags of sugar is 50.2 kg. What is the mass of each bag of sugar?

(1) 0.502 g

(2) 50.2 g

(3) 502 g

(4) 5020 g

11 The numeral A is the product of all the common factors of 24 and 30. The numeral B is the lowest common multiple of 4 and 6. Find the value of A + B.

(1) 28

(2) 48

(3) 744

(4) 756

12 Mr Lam wants to buy a durian that weighs $2\frac{2}{3}$ kg. The cost of the durians two months ago was \$12 per kg and now it costs \$18 per kg. How much more does Mr Lam have to pay for the durian now?

(1) \$2.25

(2) \$16

(3) \$32

(4) \$48

13 Find the value of $5 - 1.08 + 2.1$.

(1) 4.13

(2) 4.7

(3) 5.3

(4) 6.02

14 Mrs Tan's salary is \$2500 this year. Her salary was \$2000 last year. What was the percentage increase in her salary?

(1) 20%

(2) 25%

(3) 80%

(4) 125%

15 The table below shows the number of marks four pupils scored for their Primary 5 Maths Test.

Name	Score
Ahmad	82
Dennis	?
Raj	?
Jin	64

The average score of the 4 pupils was 62.
If Dennis scored 6 more marks than Raj, what was Raj's score?

(1) 48

(2) 54

(3) 96

(4) 102

Name: _____( ) Class: Pr 6 ( )

P6 CA1 2012

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 Given that $y = 7$, find the value of the following algebraic expression.

$$12 + 28y \div 4 - 3y$$

Ans: _____

---

17 Find the value of $6104 + 4913 - 1000$.

Ans: _____

---

18 The value of $99 \times 5 + 101 \times 5$ is _____.

Ans: _____

---

19 What is the value of digit 4 in 809.143?

Ans: _____

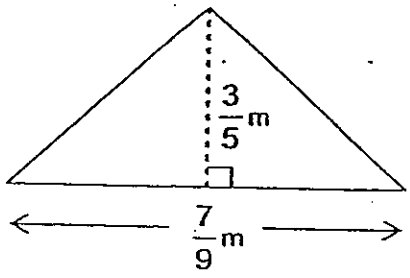
20 What is 45% of $220?

Ans: $_____

21 Sandy earns $1254 a month. What is her annual salary? Round off your answer to the nearest hundred.

Ans: $_____

22 Find the area of the triangular plot of field below.



Ans: _____ m^2

23 If $1\frac{3}{4}$ of a fraction is $\frac{9}{10}$, what is the fraction?

Ans: _____

24 The mass of 20% of a crate of fruits is 6.4 kg. How heavy is the crate of fruits?

Ans: _____ kg

25 After paying $24.25 for 5 similar boxes of cookies, Sally realised that she had to buy another 2 such boxes of cookies. How much more did Sally have to pay?

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 The table below shows the amount of rainfall for four consecutive days.

	Monday	Tuesday	Wednesday	Thursday
Amount of rainfall (cm)	$2x - 3$	$3x + 6$	$4x + 1$	$9 - 2x$

Find the average amount of rainfall.

Ans: _____ cm

---

27 Samuel borrowed money from a bank and had to pay back \$800 monthly for 12 months. If he wanted to pay back the loan in 10 months' time, how much more would he have to pay per month?

Ans:\$ _____

---

28 Adrian wrote his name in the pattern below:

ADRIANADRIANADRIAN .....?

68^{th} position

What letter would be at the 68^{th} position?

Ans: _____

29 On a Sunday, Mrs Pang spent 60% of her time baking a cake. She spent 25% of her remaining time icing the cake. If she spent $2\frac{1}{2}$ h baking the cake, how much time had she left?

Ans: _____ h

30 The average age of Mary and her mother was 22 years old six years ago. Given that she is now one third of her mother's age, how old is Mary now?

Ans: _____

NANYANG PRIMARY SCHOOL

FIRST CONTINUAL EXAMINATION 2012

PRIMARY 6

MATHEMATICS

PAPER 2

DURATION: 1 HOUR 40 MINUTES

Paper 2 Total	/ 60
GRAND TOTAL	/ 100

Name: _____ ( )

Class: Primary 6 ( )

Date: 1st March 2012

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 Peiying mixed $1\frac{1}{6}\,l$ of orange syrup, $\frac{7}{12}\,l$ of lemon syrup and $2\frac{1}{4}\,l$ of water to make some fruit punch. She spilled $\frac{5}{6}\,l$ of it while pouring into a container. How much fruit punch was left?

Express your answer as a mixed number.

Ans: _____ l

---

2 The height of a pile of 50 books is 95.5 cm. 20 of the books have a thickness of 2.5 cm each. If the rest of the books are of equal thickness, how thick is each of them? Give your answer correct to 2 decimal places.

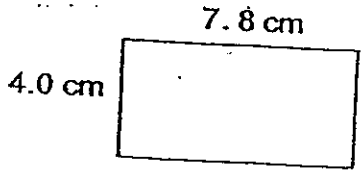
Ans: _____ cm

---

3 If the 7% GST-inclusive price of a clock is $96.30, what is the price of the clock before GST?

Ans: $ _____

4 The diagram below shows a rectangle. The length and the breadth of the rectangle are rounded off to 1 decimal place.



What is the smallest possible perimeter of the rectangle?

Ans: _____ cm

5 Uncle Raj paid an average cost of $7.20 for 5 books. If he bought another book at $12.60, what would be the new average cost of each book?

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)

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6 Taha's weekly allowance is thrice of Chloe's and Ken's weekly allowance is half of Chloe's. The weekly allowance of the three children is $\$4p$.

(a) What is Chloe's weekly allowance in terms of p?

(b) If $p = 36$, what is Chloe's weekly allowance?

Ans: (a) _____ [1]

(b) _____ [2]

---

7 The total mass of 2 identical metal tins and 3 identical wooden boxes is 87.5 kg. If 2 such wooden boxes weigh the same as 1 such metal tin, what is the mass of a metal tin? Express your answer in grams.

Ans: _____ [3]

---

8 Ali, Billy and Caili went for a jog together. When Ali had completed $8\frac{2}{5}$ km, Billy only completed $\frac{4}{7}$ of the distance covered by Ali. Caili completed $\frac{3}{2}$ times the distance covered by Billy.

(a) What fraction of Ali's distance did Caili cover?

(b) What was the total distance covered by the 3 children? Leave your answer as a decimal.

Ans: (a) _____ [1]

(b) _____ [2]

9 The patterns below are made up of sticks and triangles.

Figure 1

Figure 2

Figure 3

(a) How many sticks are required to form Figure 7?

Figure Number	No. of sticks	No. of triangles
1	4	1
2	7	2
3	10	3
4	13	4
7	?	7

(b) How many triangles are formed if 61 sticks are used?

Ans: (a) _____ [1]

(b) _____ [2]

10 1 kg of cherries cost as much as 2.5 kg of strawberries. Mrs Wong paid $57.60 for 3 kg of strawberries and 2 kg of cherries. How much did 1 kg of strawberries and 1 kg of cherries cost altogether?

Ans: _____ [3]

11 At a theme park, each adult ticket cost $60 per day, while each child ticket cost $45 per day. On Saturday, the number of adult tickets sold was 90 fewer than the number of child tickets. On Sunday, the number of adult tickets sold decreased by 25%, while the number of child tickets sold increased by 20%. If a total of 576 tickets were sold on Sunday, how much money was collected on Saturday?

Ans: _____ [4]

12 Melvin read a storybook. He read an equal number of pages each day. $\frac{3}{4}$ of the storybook was left unread after 5 days. There were 117 pages left unread after another 2 days. How many pages did he read after 10 days?

Ans: _____ [4]

13 Mrs Lim paid $326.40 for some cakes and pies. She paid $24 for each cake. The price of each pie was 0.6 times the price of the cake. If she bought 4 more pies than cakes, how many cakes and pies did she buy altogether?

Ans: _____ [4]

14 There were some goldfish and clown fish in a fish tank. The number of goldfish was 20% more than the clown fish. After Rafi sold 18 goldfish, he added 35 clown fish into the fish tank. The number of goldfish was then 40% fewer than the number of clown fish. How many fishes were there altogether in the fish tank at first?

Ans: _____ [4]

15 Julian and Cody have 540 cards altogether. If Cody gives $\frac{1}{4}$ of his cards to Julian, and Julian in turn gives $\frac{2}{5}$ of his cards to Cody, they will have the same number of cards. How many cards does each boy have at first?

Ans: Cody: _____

Julian: _____ [4]

16 Kelvin received $30 more allowance than his sister every month. Over a number of months, Kelvin saved $800, while his sister saved 70% of what Kelvin saved. Given that each of them spent $220 per month, how much was Kelvin's annual allowance?

Ans: _____ [5]

17 John had 20% more stickers than Keming. Liling had 40% fewer stickers than John. Liling lost 25% of her stickers and she had 540 stickers left. Keming bought some stickers and the number of stickers that he had increased by 10% How many stickers did the three children have in the end?

Ans: _____ [5]

18 There were 756 litres of water in Tank A and Tank B. There were 92 more litres of water in Tank A than in Tank B. The next day, some water was drained off from Tank A and Tank B. The amount of water drained off from Tank A was $\frac{1}{4}$ of the amount of water drained off from Tank B. In the end, the amount of water left in Tank B was a third of the amount of water in Tank A. How much water was in Tank A in the end?

Ans: _____ [5]

END OF PAPER

Nanyang Primary School

First Continual Assessment 2012

Primary 6, Mathematics

Paper 1 and 2

1)	3	4)	3	7)	2	10)	3	13)	4
2)	2	5)	2	8)	2	11)	2	14)	2
3)	4	6)	1	9)	2	12)	2	15)	1

16) $12 + (28y \div 4) - 3y$

$28 \times 7 = 196$

$12 + (196 \div 4) - 3y$

$12 + 49 - 21 = \underline{40}$

17) **10017**

18) **1000**

19) **0.04**

20) **99**

21) $1254 \times 12 = 15048 \approx \underline{\mathbf{15000}}$

22) $\frac{7}{15} \times \frac{1}{2} = \frac{7}{30}$

23) $\frac{9}{10} \div \frac{7}{1} = \frac{9}{70}$ $\quad \frac{9}{70} \times 4 = \frac{\mathbf{18}}{\mathbf{35}}$

24) 20% = 6.4kg

100% = $6.4 \times 5 = \underline{32}$

25) $24.25 \div 5 = 4.85$

$4.85 \times 2 = \underline{9.70}$

26) $9x + 4 - 9 - 2x = 7x + 13$

Average = $(\frac{7x+13}{4})$

27) $800 \times 12 = 9600$

$9600 \div 10 = 960$

$960 - 800 = \underline{160}$

28) $68 \div 6 = 11$ r2

Ans: D

29) 2.5hr ÷ 2 = $\underline{1}\ \frac{1}{4}$hr

30) $22 \times 2 = 44$

$44 + 12 = 56$

$56 \div 4 = \underline{14}$

Paper 2

1) $1\frac{1}{6} + \frac{7}{12} + 2\frac{2}{4} = 4$litres

$4 - \frac{5}{6} = \underline{3}\ \frac{1}{6}$

2) $2.5 \times 20 = 50$

$95.5 - 50 = 45.5$

$45.5 \div (50 - 20) \approx \underline{1.52}$

3) 107% = 96.30

1% = $96.3 \div 107 = 0.90$

100% = $0.90 \times 100 = \underline{90}$

4) Breath = $3.95 \times 2 = 7.9$

Length = $7.75 \times 2 = 15.5$

$15.5 + 7.9 = \underline{23.4}$

5) $7.20 \times 5 = 36$

$12.6 + 36 = 48.60$

$48.60 \div (5+1) = \underline{8.10}$

6)a $(\$\frac{4p}{9} \times 2) = \$\frac{8p}{9}$

6b) $\$4p = \$36 \times 4 = \$144$

$\$144 \div 9 = \$16$

$\$16 \times 2 = \underline{\$32}$

7) 7units = 87.5kg

1unit = $87.5 \div 7 = 12.5$kg

2units = $12.5 \times 2 = 25$kg

25kg = <u>25000g</u>

$\frac{4}{7} \times 8\frac{2}{5} = 4\frac{4}{5}$ km (Billy)

$\frac{3}{2} \times 4\frac{4}{5}$ km $= 7\frac{1}{5}$ km (Caili)

$7\frac{1}{5}$ km $\div 8\frac{2}{5}$ km $= \frac{6}{9}$ **(Ali)**

$4\frac{4}{5}$ km $+ 7\frac{1}{5}$ km $+ 8\frac{2}{5}$ km = **20.4km**

l) $\frac{120}{100} \times 90 = 108$

576 - 108 = 468
120% + 75% = 195%
195% = 468
1% = 468 ÷ 195 = 2.4

100% = 2.4 x 100 = 240
240 x $60 = $14400 (adult)
240 + 90 = 330
330 x $45 = $14850 (child)
Money collected = $14850 + $14400 = **$29250**

b) Pie = 0.6 x $24 = $14.40
4 pies = $14.40 x 4 = $57.60
$326.40 - $57.60 = $268.80
$14.40 + $24 = $38.40
$268.80 ÷ $38.40 = 7 (sets of pies & cakes)
7 x 2 = 14
Total bought = 14 + 4 = **18**

i) 540 ÷ 18 = 30
Cards Cody has at first = 4 x 30 = **120**
Cards Julian has at first = 14 x 30 = **420**

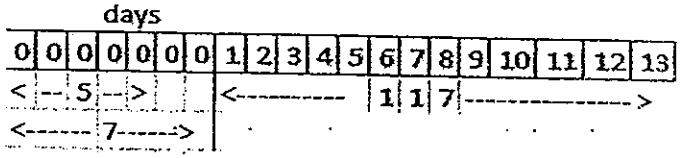
') 75% x 18units = 13.5units
13.5units = 540
1 unit = 540 ÷ 13.5 = 40
John = 30units = 30 x 40 = 1200
Keming = 25u*10% = 25 x 40 (x10%) = 1100
Total stickers = 1200 + 1100 + 540 = **2740**

9a) 4 + (6 x 3) = **22**

9b) 61 - 4 = 57
57 ÷ 3 = 19
19 + 1 = **20**

10) 16units = $57.60
1unit = $57.60 ÷ 16 = $3.60
Cherries = 5units = $3.60 x 5 = $18
Strawberries = 2units = $3.60 x 2 = $7.20
Total cost = $7.20 + $18= **$25.20**

12)



13units = 117
1unit = 117 ÷ 13 = 9
Pages read = 9 x 10 = **90**

14) 6units - 18 = 3 parts
5units + 35 = 5parts
30units - 90 = 15parts
15uits + 105 = 15parts

30units - 90 = 15units + 105
30units - 15units = 90 + 105
15units = 195
1unit = 195 ÷ 15 = 13
Fishes at first = 13 x 11 = **143**

16) 70% x $800 = $560 (sister)
$800 - $560 = $240
$240 ÷ $30 = 8 (months)
$800 ÷ 8 = $100 (saved per month)
$100 + $220 = $320 (allowance)
Kelvin's annual allowance = $320 x 12 = **$3840**

18) Tank A = 3units = 424litres - X
1unit = 332litres - 4X
424litres - X = 3X (332litres - 4x)
424litres - X = 996litres - 12x
11x = 572
x = 52litres
Water remaining = 424litres - 52litres = **372litres**