NANYANG PRIMARY SCHOOL

SECOND SEMESTRAL EXAMINATION 2012

PRIMARY 5

MATHEMATICS

PAPER 1

DURATION: 50 MINUTES

Booklet A	/ 20
Booklet B	/ 20

Paper 1 Total: / 40

Name: _____ ( )

Class: Primary 5 ( )

Date: 8 Oct 2012

Parent's Signature: _____

Any query on marks awarded should be raised by 25 October 2012. We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

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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 What is the value of $75 - 15 \div 3 + 6 \times 2$?

(1) 32

(2) 52

(3) 82

(4) 152

2 Find the value of $\frac{5}{6} \times \frac{3}{4}$.

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

(2) $\frac{4}{5}$

(3) $\frac{5}{8}$

(4) $\frac{9}{10}$

3 Find the product of $\frac{20}{3}$ and $\frac{1}{12}$.

(1) $\frac{5}{9}$

(2) $\frac{7}{12}$

(3) $1\frac{4}{5}$

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

4 Find the value of $\frac{4}{9} \div 6$.

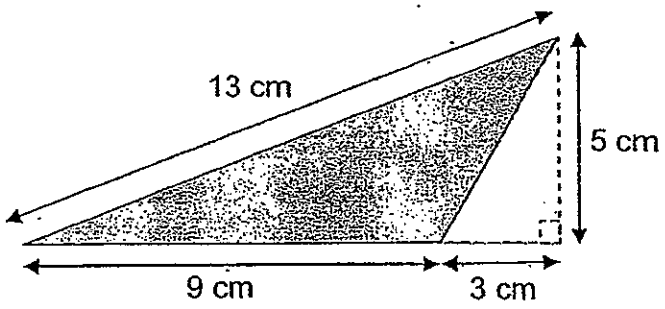
(1) $\frac{2}{27}$

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

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

(4) $\frac{27}{2}$

5 Find the area of the triangle shown below.



(1) 7.5 cm^2

(2) 22.5 cm^2

(3) 30 cm^2

(4) 58.5 cm^2

6 Huiyi is $\frac{7}{4}$ times as old as Raj. What is the ratio of Raj's age to Huiyi's age?

(1) 4 : 7

(2) 7 : 4

(3) 4 : 3

(4) 3 : 4

7 The volume of a cube is 216 cm^3. What is the length of one edge of the cube?

(1) 108 cm

(2) 72 cm

(3) 36 cm

(4) 6 cm

8 Which one of the following has the same value as 31.02×400?

(1) $3.102 \times 4 \times 10$

(2) 3.102×4000

(3) $310.2 \times 40 \times 40$

(4) 310.2×4000

9 There are 10 boys and 30 girls in a class. What percentage of the class are boys?

(1) 25%

(2) 33.3%

(3) 50%

(4) 75%

10 A watch cost $52 after a 20% discount. What was the original price of the watch?

(1) $54.60

(2) $65

(3) $208

(4) $260

11 Find the value of 2.04 ÷ 30

(1) 0.806

(2) 0.68

(3) 0.608

(4) 0.068

12 At a party, 9 out of every 30 adults were men. What was the ratio of the number of women to the number of men?

(1) 3 : 7

(2) 3 : 10

(3) 7 : 3

(4) 10 : 3

13 The table below shows the number of bottle caps collected by each child.

Name of child	Number of bottle caps
Gilbert	11
Hassan	0
Mei Lin	11
Nora	26

What was the average number of bottle caps collected by the children?

(1) 11

(2) 12

(3) 16

(4) 48

14 Daniel spent 60% of his savings on a toy car. He spent 20% of the remaining money on a pencil case. What percentage of his original savings was left?

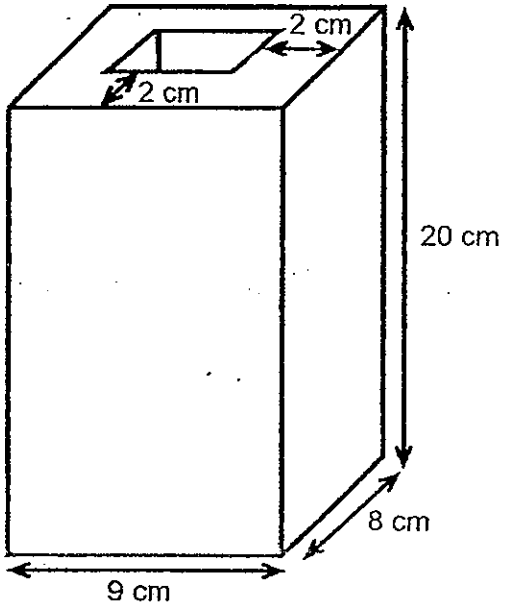
(1) 8%

(2) 12%

(3) 20%

(4) 32%

15 The figure shows a wooden block in the form of a cuboid measuring 9 cm by 8 cm by 20 cm. A hole of depth 10 cm was cut out from the wooden block leaving a 2-cm wide border around it. Wood cut out from the hole was thrown away. What was the volume of the wood left?



(1) 200 cm^3

(2) 420 cm^3

(3) 1020 cm^3

(4) 1240 cm^3

Name: _____ ( ) Class: Pr 5 ( )

P5 SA2 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 What is the number in the box?

$915\,617 = \square \times 10\,000 + 15 \times 1000 + 6 \times 100 + 17$

Ans: _____

---

17 What is the value of $(130 - 80 \div 2) - 15 \times 4$?

Ans: _____

---

18 Find the value of $\frac{2}{3} - \frac{1}{4}$.

Ans: _____

9

19 Find the value of $4\frac{1}{8} \times 8$.

Ans: _____

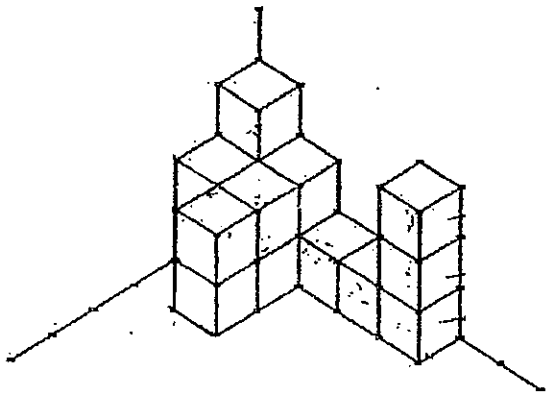
---

20 Find the ratio of 8 minutes to 1 hour. Give your answer in its simplest form.

Ans: _____

---

21 The solid below is made up of unit cubes. How many unit cubes are used to build the solid below?



Ans: _____

---

22 A rectangular tank measuring 7 m by 4 m by 2 m is completely filled with water. What is the volume of water in the tank?

Ans: _____ m^3

---

23 Jenny had 7 kg of sugar. She packed them into 8 equal packets. Find the mass of each packet. Express your answer to the nearest 2 decimal places.

Ans: _____ kg

---

24 Ruo Li spent 20% of his money on a box of chocolates and 60% of his money on some candies. What fraction of his money did he spend? Give your answer in its simplest form.

Ans: _____

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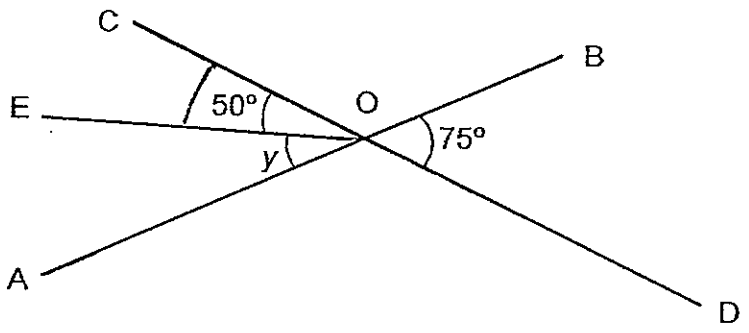
25 In the figure below not drawn to scale, AB, CD and EO are straight lines. Find $\angle y$.



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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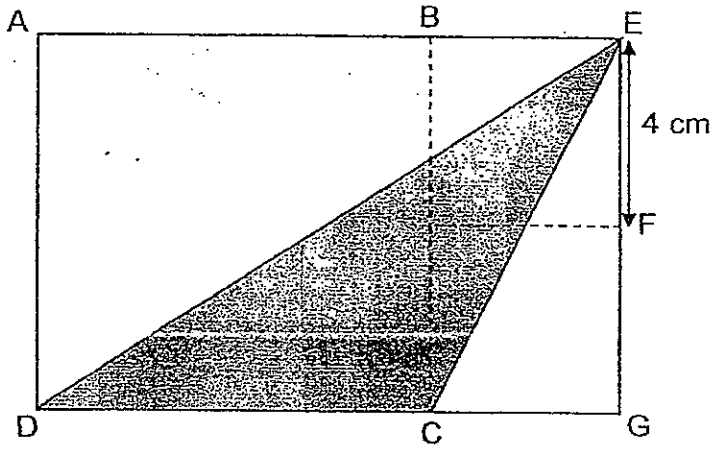
26 The figure below shows Square ABCD, two identical small squares and a shaded triangle. Each of the small squares has a length of 4 cm. Find the area of the shaded triangle.



Ans: _____ cm^2

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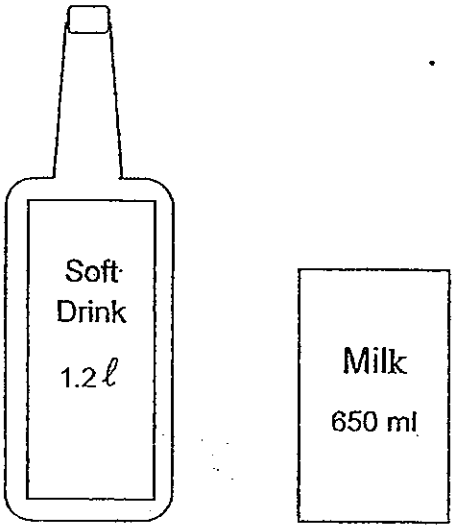
27 John bought 2 bottles of soft drinks and a packet of milk. Express the total volume of the soft drinks and the milk he bought in ℓ and ml.



Ans: _____ ℓ _____ ml

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28 Find the missing number.

45 : 10 : 35 = 27 : 6 : ?

Ans: _____

---

29 A salesman gave 2 different discounts to Customers X and Y. Customer X paid $480 for a watch at 20% discount. Customer Y paid $570 for a similar watch. What percentage discount did customer Y receive?

Ans: _____ %

---

30 There was a group of 6 girls and some boys.
The average mass of the group of children was 40 kg.
The average mass of the 6 girls was 44 kg.
The average mass of the boys was 37 kg.
How many boys were there in the group?

Ans: _____

15

NANYANG PRIMARY SCHOOL

SECOND SEMESTRAL EXAMINATION 2012

PRIMARY 5

MATHEMATICS

PAPER 2

DURATION: 1 HOUR 40 MINUTES

Paper 2 Total	**/ 60**
GRAND TOTAL	**/ 100**

Name: _____ ( )

Class: Primary 5 (

Date: 8 Oct 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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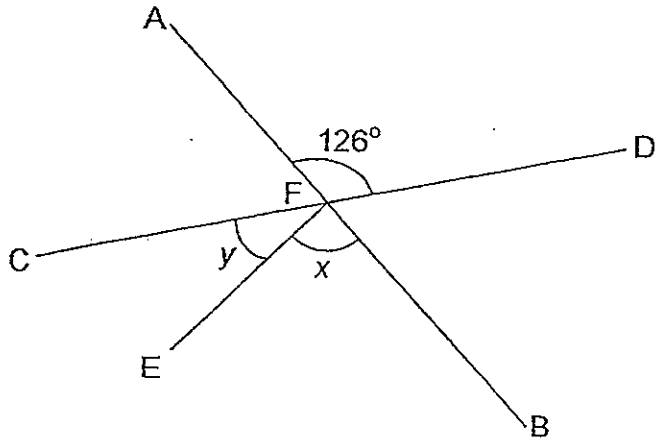
1 Find the sum of $33\frac{5}{6}$ and 11 quarters. Express your answer as a mixed number in its simplest form.

Ans: _____

---

2 The following figure is made up of straight lines AB, CD and EF. Given that $\angle x$ is twice the size of $\angle y$ and $\angle AFD$ is 126°, find $\angle x$.



Ans: _____ °

---

3 Kim Seng took 2 weeks to read $\frac{7}{12}$ of a book. He read equal number of pages every day. What fraction of the book did he read each day?

Ans: _____

---

4 A box contains some 20-cent and 50-cent coins. The ratio of the number of 20-cent coins to the number of 50-cent coins is 4 : 1. The total value of the 20-cent coins is $8. Find the total value of the 50-cent coins.

Ans: $ _____

---

5 The ratio of Justin's age to Sheila's age is 1 : 3. Sheila is 16 years older than Justin. How old is Justin?

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 The usual price of a belt was $290. During a sale, 20% discount was given. How much would the belt cost in total if there is a 7% GST that needs to be paid after the discount? Round off your answer to the nearest dollar.

Ans: _____ [3]

---

7 A rectangular tank which has a square base of side 25 cm and height 15 cm is half-filled with water. Another 1.5 litres of water is then poured into the tank. How much water is there in the tank now? Give your answer in millilitres.

Ans: _____ [3]

---

8 In a concert hall, there were 93 adults and some children. The number of children was thrice the number of adults. During the break time, an equal number of adults and children left the concert hall and did not return. At the end of the concert, there were four times as many children as adults in the concert hall. How many adults were there at the end of the concert?

Ans: _____ [3]

---

9 A group of men and women shared $1280. Each man received $7 and each woman received $4. Given that there were four times as many men as women, how many men were there?

Ans: _____ [3]

---

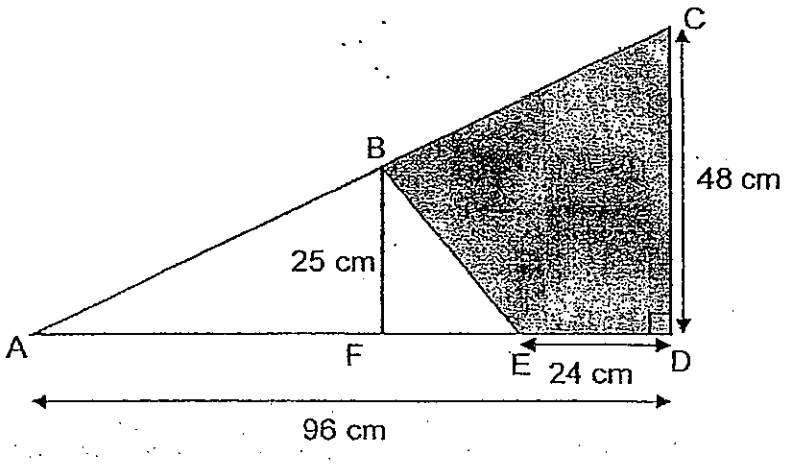
10 A fishmonger sold fish at $12.50 per kg. His weighing scale read 8% more than the actual mass. A customer bought a fish that had a mass of 5.4 kg on this scale. Find the amount of money the customer had overpaid for that fish.

Ans: _____ [3]

11 Siti had some sweets. She gave $\frac{3}{5}$ of her sweets to Devi and $\frac{1}{3}$ of the remaining sweets to Pei Pei. If Devi received 84 more sweets than Pei Pei, how many sweets did Siti have at first?

Ans: _____ [4]

12 The figure below shows a right-angled triangle ACD, and two smaller triangles. The ratio of the length FE to the length ED is 11 :12. Given that BF = 25 cm, CD = 48 cm, ED = 24 cm and AD = 96 cm, find



(a) the area of triangle ABF and

(b) the area of the shaded region BCDE.

Ans: _____ [2]

_____ [2]

13 In a bakery, the ratio of the number of pies to the number of tarts was 3 : 7. After another 266 pies and 18 tarts were baked, there was an equal number of pies and tarts. How many tarts were there in the bakery at the end?

Ans: _____ [4]

14 Jean had to deliver 70 hampers. She was paid $3.10 for every hamper delivered undamaged. For each damaged hamper, she was not paid and had to pay $3.40 instead. At the end of the day, Jean delivered all the hampers and was paid $178. How many hampers did she damage?

Ans: _____ [4]

15 Jamil wrote a few numbers on a piece of paper and calculated the average of the value of these numbers.

If Jamil wrote another number, 34, on the paper, the average would increase by 1.
If he wrote number 58 instead, the average would increase by 4.
How many numbers did he write on the piece of paper?

[4]

16 The mass of rice in Bag B was 0.25 the mass of rice in Bag A at first. After 105 kg of the rice in Bag A and 20 kg 300 g of rice in Bag B was used, the mass of rice in Bag A was $\frac{1}{2}$ the mass of rice in Bag B.

(a) How much rice was left in Bag B at the end?

(b) What was the total mass of rice in Bag A and Bag B at first?

_____ [3]

_____ [2]

17 A shop sold blocks of metal in the form of a cuboid. Each block of metal measured 19 cm by 3 cm by 2 cm.

Mr Gopal bought some blocks of metal from the shop. He melted the blocks of metal into liquid metal and recast it into cubes, each with an edge of 2 cm. The maximum number of cubes that he managed to recast is 42.

(a) How many blocks of metal did Mr Gopal buy from the shop?

(b) If Mr Gopal used all of the 42 cubes to build a cuboid in which the perimeter of its base was 20 cm, what was the height of the cuboid?

Ans: (a) _____ [3]

(b) _____ [2]

18 Siti baked some muffins. 60% of the muffins were chocolate and 75% of the remainder were strawberry. The rest were vanilla. There were 240 more chocolate than vanilla muffins. After Siti sold some of her chocolate muffins, 80% of her unsold muffins were strawberry and vanilla flavoured.

(a) How many muffins did Siti bake at first?

(b) How many chocolate muffins were sold?

Ans: (a) _____ [2]

(b) _____ [3]

END OF PAPER

Answer Ke

EXAM PAPER 2012

SCHOOL : Nanyang Primary School
SUBJECT : Primary 5 Maths
TERM : SA 2

Order :

Paper 1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
3	3	1	1	2	1	4	2	8	2	4	3	2	4	4

16 90
17 30
18 5/12
19 33
20 2:15
21 16
22 56
23 0.88
24 4/5
25 25°
26 4 + 4 = 8
1/2 x 8 x 8 = 32
27 3L 50mL
28 6/10 x 35 = 21
29 Original price: 100 / 80 x 480 = $600
(600 - 570) / 600 x 100% = 5%
30 (44 - 40) x 6 = 24
24 ÷ (40 - 37) = 8

Paper 2

1 36 7/12
2 126 ÷ 3 = 42
42 x 2 = 84°
3 7/12 ÷ 14 = 1/24
4 4u -> $8
1u -> $2 (ten 20c coins)
number of 50c coins = 10
10 x 50c = $5

EXAM PAPER 2012

SCHOOL : Nanyang Primary School
SUBJECT : Primary 5 Maths
TERM : SA 2

Order :

5 3 - 1 = 2
16 ÷ 2 = 8

6 100% - 20% = 80%
80/100 x $290 = $232
107/100 x $232 = 248.24
~$248

7 25 x 25 x 15 = 9375
9375 ÷ 2 = 4687.5
4687.5 + 1500 = 6187.5 mL

8 93 x 3 = 279
279 - 93 = 186
4 - 1 = 3
186 ÷ 3 = 62

9 $7 x 4 + $4 = $32
1280 ÷ 32 = 40
40 x 4 = 160

10 8 / 108 x 12.50 x 5.4 = $5

11 PP ->2u
D ->9u
9 - 7 = 2
7u ->84
15/7 x 84 = 180

12a FE = 11/12 x 24 = 22cm
96 - 22 - 24 = 50
1/2 x 50 x 25 = 625cm^2

12b (1/2 x 96 x 48) - (625) - (1/2 x 22 x 25) = 1404 cm^2

13 266 - 18 = 248
4u -> 248
7/4 x 248 = 434
434 + 18 = 452

14 $3.10 x 70 = 217
$217 - $178 = $39
$3.10 + $3.40 = $6.50
39 ÷ $6.50 = 6

15 58 - 34 = 24
4 - 1 = 3
24 ÷ 3 = 8
8 - 1 = 7

17a $2 \times 2 \times 2 = 8cm^3$

$8 \times 42 = 336cm^3$

$19 \times 3 \times 2 = 114cm^3$

$336 \div 114 = 2.95$

Blocks of metal bought = 3

17b $20 / 4 = 5$

$6 + 4 + 4 + 6 = 20$

$42 \div 6 = 7$

$7 \times 2 = 14$

18a $100\% - 60\% = 40\%$

$75/100 \times 40\% = 30\%$

Strawberry = 30%

Vanilla = 10%

$60\% - 10\% = 50\%$

$50\% = 240$

$100\% = 480$

18b Vanilla = $10\% = 48$

Strawberry = $30\% = 144$

unsold $80\% = 48 + 144 = 192$

$20\% = 48$

Total chocolate at first = $60/100 \times 480 = 288$

$288 - 48 = 240$