METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887

END-OF-YEAR EXAMINATION 2012
PRIMARY 5
MATHEMATICS

PAPER 2

Duration: 1h 40 min

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Write your answers in this booklet.
The use of an approved calculator is expected, where appropriate.

Name: _____ .( )

Class: Primary 5._____

Date: 9 October 2012

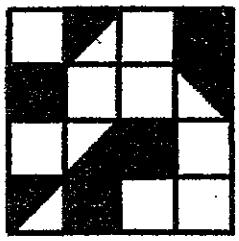
50/60

This booklet consists of 15 printed pages including this page.

Do not write in this space

Questions **1** to **5** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

1. Zhiqin needs to shade $\frac{5}{8}$ of the grid below. Some parts of the grid are already shaded. How many more squares must she shade?



Ans: _____

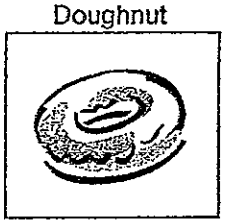
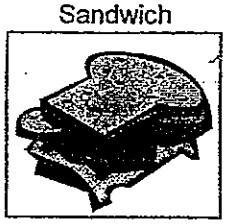
2. A jug contains 6.09 litres of water. Raju drank 350 millilitres of the water. He then used 0.2 litres of it to make an orange drink for his sister. How much water was left in the jug?

Ans: _____ *ml*

Score

Muffin

3. Paula's Bakery sells its doughnuts and ~~cakes~~ at a 30% discount and sandwiches at a 50% discount after 8 p.m.

Doughnut	Muffin	Sandwich
		
$1.50	$1.60	$3.45

How much do you need to pay if you buy 4 doughnuts, 2 muffins and 2 sandwiches after 8 p.m.? Round off your answer to the nearest dollar.

Ans: $ _____

4. One-third of a rectangular tank is filled with water. Devi poured in another 3.6ℓ of water to make it $\frac{5}{7}$ full. What is the capacity of the tank?

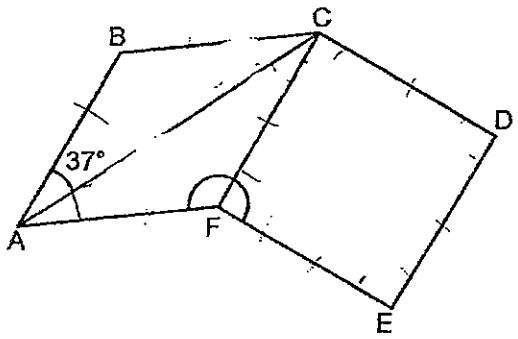
Ans: _____ ml

Do not write in this space

Score

85

5. In the figure, ABCF is a rhombus and CDEF is a square. Find ∠AFE.



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Ans: _____ °

Score

For questions **6** to **18**, show your working clearly 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. Delia and Emily made a donation on Flag Day. Emily donated twice as many 20-cent coins as $1 coins. Delia gave $1.80 in 50-cent and 20-cent coins. Both girls donated the same number of 20-cent coins.

(a) Who donated more money?
(b) How much more?

Ans _____

_____

7. Mark had $40. He spent $\frac{1}{5}$ of it on food. He then bought a pen which cost half as much as the cost of the food. How much money had he left?

Ans: _____ [3]

Score

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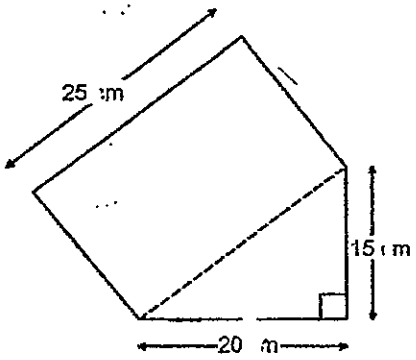
8. The figure shows the shape of a field that is made up of a rectangle and a triangle. The perimeter of the field is 94 m. What is the area of the field?



Ans: _____ [3]

9. In a Formula X race, the total distance covered is 300 km. Given that one lap of the Marina Bay Circuit in Singapore is 5 079 m, how may laps must a Formula ~~One~~ driver cover in the race? Round off your answer to the nearest whole number.

Ans: _____ [3]

Score

ignove

10. (a) In the space below, draw a parallelogram ABCD in which ~~AB = 7 cm,~~ BC = 5 cm and $\angle ABC = 120°$. The line AB has been drawn for you. [2]

(b) Measure AC.

Ans: (b) _____ [1]

Do not write in this space

Score

Do not write in this space

11. The average mark Jane obtained for four subjects was 82. The score for two subjects were 83 and 74. The difference between the score for the other two subjects was 9. What was the highest mark she obtained?

Ans: _____ [4]

Score

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12. Sharma bought some apples and oranges in the ratio 3:5. $\frac{1}{6}$ of the apples and $\frac{1}{4}$ of the oranges were rotten. After throwing the rotten fruits away, Sharma bought another 50 apples and 20 oranges. She then had an equal number of fruits left. How many fruits did she have at first?

Ans: _____ [4]

Score

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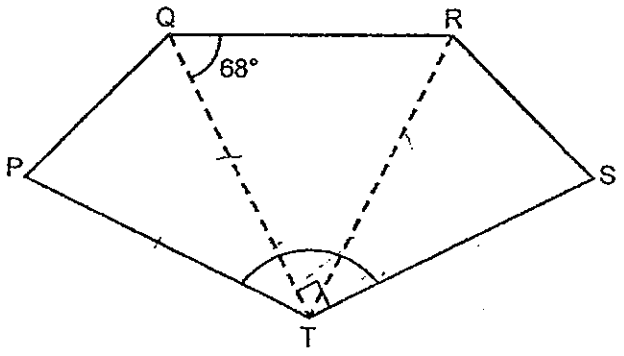
13. In the figure, PQT and RST are identical triangles. PT=QT=RT=ST and $\angle RQT = 68°$.



Ans: _____

_____ [3]

Score

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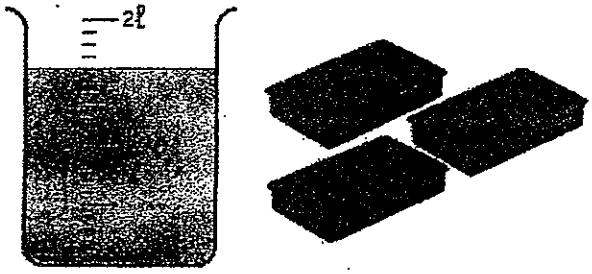
14. The beaker below contains some water. The water is then poured into 3 identical ice trays. Each ice tray can hold 15 cubes of sides 3 cm.



(a) How much water can one tray hold?

(b) How much water was left in the beaker after all the three ice trays have been completely filled?
(1 litre = 1 000 cm^3)

Ans: (a) _____ [2]

(b) _____ [2]

Score

93

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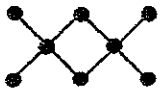
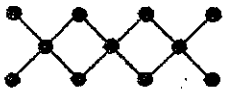
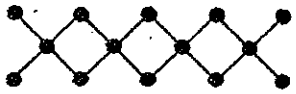
15. Gail used dots and sticks to create patterns as shown below. She noticed there was a square in Pattern 1 and 2 squares in Pattern 2. She recorded the number of dots and sticks used in the table shown below.



Pattern 1



Pattern 2



Pattern 3

	Number of dots	Number of sticks	Number of squares
Pattern 1	8	8	1
Pattern 2	11	12	2
Pattern 3	14	16	3
Pattern 4	(a)	(a)	4
⋮			

(a) Complete the table above for Pattern 4. [1]

(b) She made a pattern using 35 dots. How many sticks did she use?

(c) How many dots and sticks are needed altogether to form 13 squares?

Ans: (b) _____ [2]

(c) _____ [2]

Score

16. The price of an adult air ticket to Korea is \$990. The air ticket price for children below 12 years of age is $\frac{4}{5}$ of the cost of an adult ticket. Mr Lim bought tickets for himself, his wife, his mother and two children, aged 15 and 11. He used $\frac{3}{4}$ of his monthly salary to pay for the tickets. What was Mr Lim's monthly salary?

Do not write in this space

Ans: _____ [5]

Score

Do not write in this space

17. Mrs James baked some chocolate and banana muffins in the ratio 8 : 5 respectively. John ate $\frac{1}{4}$ of the chocolate muffins, while Jane ate $\frac{1}{3}$ of the banana muffins.

(a) What was the ratio of the the chocolate muffins left to the banana muffins left?

(b) Mrs James then baked another 60 walnut muffins, there was an equal number of banana and walnut muffins. How many muffins were there in the end?

Ans: (a)_____ [2]

(b)_____ [3]

Score

Do not write in this space

18. Jane has a box which contained red, white and blue buttons. There were 150 red buttons and an equal number of white and blue buttons. After she added 25% more blue buttons into the box, the number of blue buttons increased to 100.

(a) How many white buttons were in the box at first?

(b) After Jane has given away 38 red buttons, what percentage of her red buttons did she have left? Give your answer correct to 1 decimal place.

Ans: (a) _____ [3]

(b) _____ [2]

Score

Answer Ke

SCHOOL : MGS
SUBJECT : PRIMARY 5 MATHEMATICS

TERM : SA2

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

16)8 x 9 = 72
9 x 9 = 81
81 + 7 = 88

17)14 and 21

18)35/120 = 7/24

19)28 ÷ 7 = 35
2/7 = 10/35
10 – 2 = 8

20)18 ÷ 2 = 9
9 x 5 = 45

21)0.004g x 50 = 0.2g

22)38 x 4 = 152
152 – 40 = 112kg

23)107/100 x 25 = $26.75

24)180° – 157° = 23°
180° – 90° – 23° = 67°

25)64° x 2 = 128°
180° – 128° = 52°

26)4 x 5 = 20
60c x 20 = 1200c = $12
$12 – $1.80 = $10.20
$10.20 ÷ 4 = $2.55

27)100% - 35% = 25%
40%→$32
25%→25x32/40 = $20
$20÷2 = $10

28)42÷7 = 6
6 x 6 = 36
6÷3 = 2cm

29)1 : 8

30)20 x 25 x 15 = 7500
60 x 25 x 50 = 75000
75000 + 7500
82500cm³

Paper 2

1)4 x 4 = 16 (total squares)
5/8 = 10/16
10 – 6 = 4 more squares

2)6.09L – 0.2L = 5.89L
350ml = 0.35L
5.89L = 0.35L
=5.54L
=5540ml

3.)105c x 4 = 420c
112c x 2 = 224c
172.50c x 2 = 345c
420c + 224c + 345c = 989c .
= $9.89 ≈ $10

4. 5/7 – 1/3 = 8/21
3.6L÷8 = 0.45L
0.45L x 21 = 9.45L
=9L 450ml

5. 180° – 37° – 37° = 106°
106° + 90° = 196°

6 Della : $1.80
)1 (2.50c) 80c (4 – 20c)

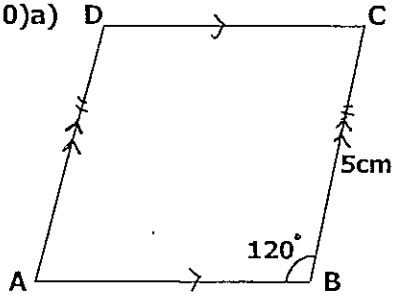
Emily : 4÷2 = 2
80c (4 – 20c)
$2 (2 - $1)
2 + 0.8 = 2.8
a)Emily
)2.8 – 1.8 = 1

7 1/5 x $40 = $8
$8÷2 = $4
$8 + $4 = $12
$40 – $12 = $28

8)94 – 25 – 20 – 15 = 34
34÷2 = 17
25 x 17 = 425
½ x 20 x 15 = 150
425 = 150 = 575m2

9)300km = 300000m
300000m÷5079m
≈59.0 ≈ 59 laps

10)a)



b)10.1cm

11)82 x 4 = 328
328 – 83 – 74 = 171
171 – 9 = 162
162÷2 = 81
81 + 9 = 90 marks

12)20u + 50 = 30u + 20
30 = 10u
3 = u
192 = 64u
Ans: 192 fruits

13)68° x 2 = 136°
180° – 136° = 44°
90° – 44° = 46°
90° + 46° = 136°

14)a)3 x 3 x 3 = 27
27 x 15 = 405cm3
b)1.6L = 1600cm3
405cm3 x 3 = 1215cm3
1600cm3 – 1215cm3 = 385cm3

15)a)17 20
b)35 – 8 = 27
27÷3 = 9
9 + 1 = 10 (pattern no)
10 – 1 = 9
9 x 4 = 36
36 + 8 = 44
c)13 x 4 = 52
52 + 4 = 56 (sticks)
56 – 8 = 48
48÷4 = 12
12 + 1 = 13 (pattern no)
13 – 1 = 12
56 – 12 = 44
44 + 56 = 100 dots and sticks

16)4/5 x $990 = $792
$990 x 4 = $3960
$3960 + $792 = $4752
$4752÷3 = $1584
$1584 x 4 = $6336

17)a) C : B
8 : 5
24 : 15
18 : 10 = 9 : 5

b)60÷10 = 6
18 +10 = 28
28 6 = 168
168 + 60 = 228

18)a)125%→100 buttons
100%→80 buttons
b)150 – 38 = 112
112/150 x 100% ≈ 74.66% ≈ 74.7%