PRIMARY 6 SEMESTRAL ASSESSMENT 2 - 2012

Name : _____ ( ) Date: 19 July 2012

Class : Primary 6 ( ) Time: 8.00 a.m. - 8.50 a.m.

Parent's Signature : _____ Marks: _____ / 100

Paper 1 comprises 2 booklets, A and B.

MATHEMATICS

PAPER 1

(BOOKLET A)

INSTRUCTIONS TO CANDIDATE

1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided.
6. 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 correct oval on the Optical Answer Sheet.

(20 marks)

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1) Which of the following is the same as 3050 g?

(1) 3 kg 5 g
(2) 3 kg 50 g
(3) 30 kg 5 g
(4) 30 kg 50 g

2) Shawn has just completed a 50-metre freestyle swimming competition. Which of the following is likely to be Shawn's speed?

(1) 1 m/s
(2) 10 m/s
(3) 1 m/min
(4) 10 m/min

3) Brandon is facing north after turning 135° in the clockwise direction. Which direction was he facing at first?

(1) Northeast
(2) Northwest
(3) Southeast
(4) Southwest

4) Simplify $5s - 7 + 4s + 3$.

(1) $9s + 4$

(2) $9s - 4$

(3) $9s + 10$

(4) $9s - 10$

5) Express 0.065 as a percentage.

(1) 0.65%

(2) 6.5%

(3) 65%

(4) 650%

6) Which of the following is the largest?

(1) $1 - \frac{2}{3}$

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

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

(4) $1 - \frac{7}{8}$

7) A musical started at 7.45 p.m. and ended at 10.20 p.m. There was a 15-minute interval during the performance. What was the actual duration of the musical?

(1) 2 h 20 min

(2) 2 h 35 min

(3) 2 h 45 min

(4) 2 h 50 min

8) At a party, 42 children ate chocolates. 46 children ate sweets. Half of those who ate chocolates ate sweets as well. How many children were there at the party?

(1) 65

(2) 67

(3) 71

(4) 88

9) The table below shows a baby's height from birth to 8 months old.

Age (months)	Height (cm)
At birth	52
2	58
4	63
6	65
8	70

At what age was the baby's height 125% of his height at birth?

(1) 6 months old

(2) 2 months old

(3) 8 months old

(4) 4 months old

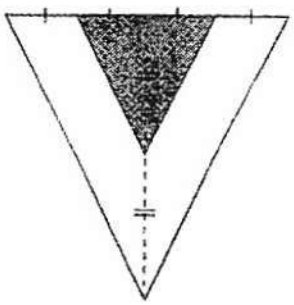
10) What fraction of the triangle is **unshaded**?

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

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

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

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



11) The table below shows the rental to hire a bicycle.

Duration	Rental
For the 1st hour	$2.50
For every additional half hour or part thereof	$0.80

Ismail hired a bicycle from 3.30 p.m. to 6.45 p.m. How much did he pay?

(1) $3.30

(2) $4.90

(3) $5.60

(4) $6.50

12) Mrs Goh bought 4 kg of beef and 3 kg of mutton for $50. If she had bought 3 kg of beef and 4 kg of mutton, she would pay $2 less. How much did 1 kg of beef cost?

(1) $6.50

(2) $7.00

(3) $8.00

(4) $14.00

13) Tap A can fill $\frac{1}{2}$ of a tank in 6 minutes. Tap B can fill $\frac{1}{3}$ of the same tank in 2 minutes. How long will it take to fill the empty tank if both taps are turned on at the same time?

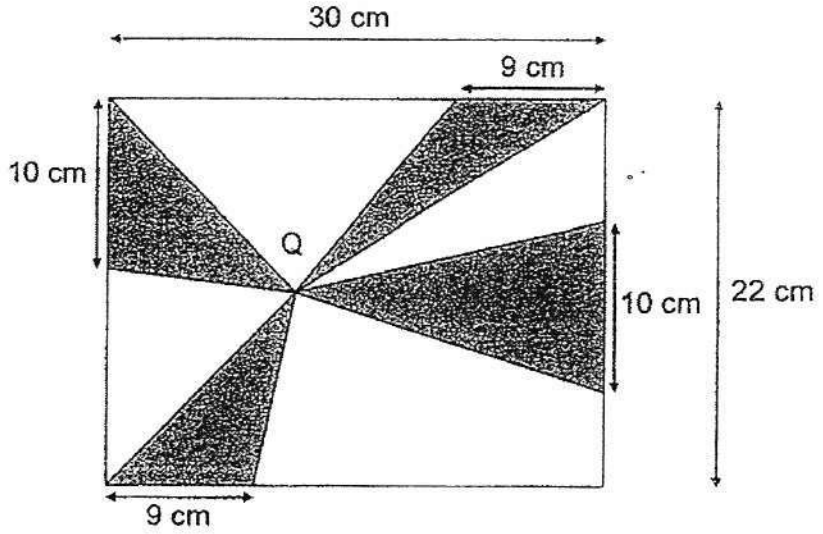
(1) 8 minutes

(2) 2 minutes

(3) 6 minutes

(4) 4 minutes

14) Four shaded triangles are drawn inside a rectangle of sides 30 cm by 22 cm as shown in the diagram below. The vertexes of the shaded triangles meet at the same point, Q. The base lengths of the shaded triangles are 10 cm and 9 cm. Find the area of the shaded region.



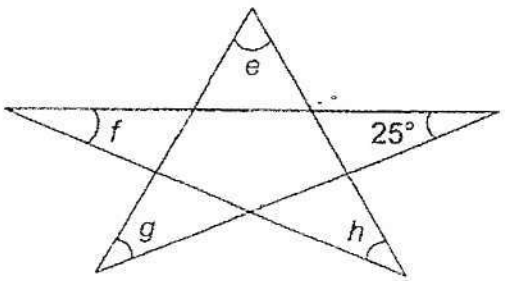
(1) 220 cm^2

(2) 249 cm^2

(3) 498 cm^2

(4) 660 cm^2

15)



Find $\angle e + \angle f + \angle g + \angle h$.

(1) 100°

(2) 125°

(3) 155°

(4) 175°

PRIMARY 6 SEMESTRAL ASSESSMENT 2 - 2012

Name : _____ ( ) Date: 19 July 2012

Class : Primary 6 ( ) Time: 8.00 a.m. - 8.50 a.m.

Parent's Signature : _____

Paper 1 comprises 2 booklets, A and B.

MATHEMATICS

PAPER 1

(BOOKLET B)

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INSTRUCTIONS TO CANDIDATE

1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.
6. You are **not** allowed to use a calculator.

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) Find the value of $49.63 \div 7$.

Ans: _____

17) Express $\frac{3}{8}$ as a percentage.

Ans: _____ %

18) Express 0.25% as a fraction in the simplest form.

Ans: _____

19) The table below shows the amount of pocket money 4 pupils have. Find their average amount of pocket money.

Name of pupil	Johan	Michelle	Brian	Neesh
Amount of pocket money	$3	$8	$2.50	$4.30

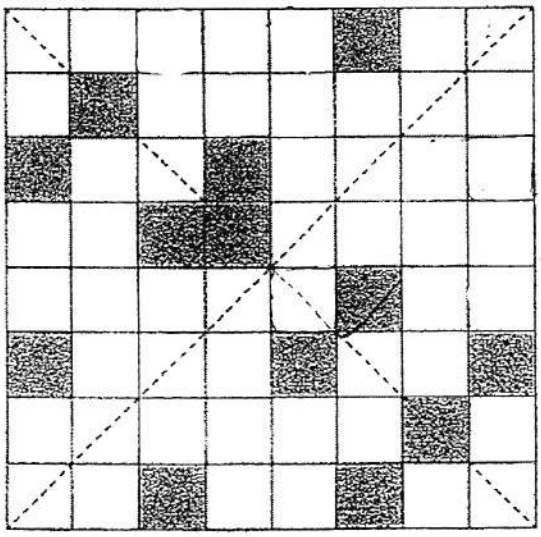
20) Coffee was spilt on part of the table below. It shows the number of pupils in a class scoring within various mark ranges.

Mark range	Number of pupils
91 – 100	4
81 – 90	6
71 – 80	9
61 – 70	
51 – 60	

35 pupils scored more than 60 marks.
How many pupils scored in the mark range 61 – 70?

Ans:

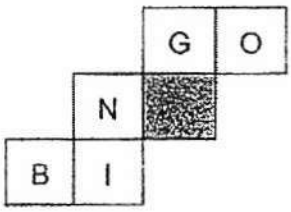
21) The figure below is made up of squares. Shade **three** more squares so that the figure has two lines of symmetry.



22) Osman was 1 m 5 cm tall in Primary 1. He is 47 cm taller now. What is Osman's height now?

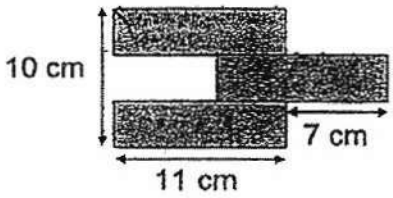
Ans: _____ m

23) The net below is folded to make a cube. Which letter is opposite to the shaded face?



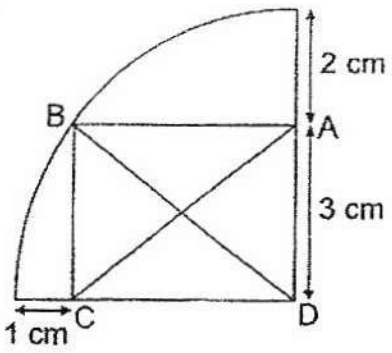
Ans: _____

24) The following figure is made up of identical rectangles. Find the perimeter of the figure.



Ans: _____ cm

25) Rectangle ABCD is inside a quadrant as shown. Find the length of AC.



Ans: _____ cm

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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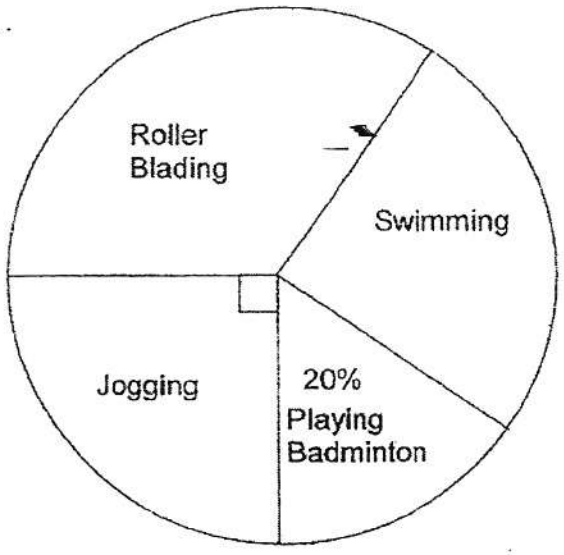
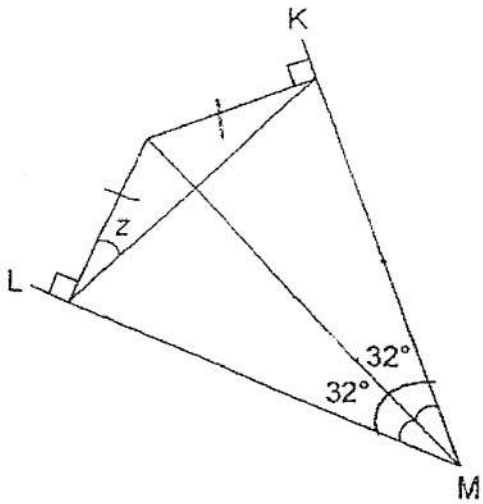
26) A survey was done on a group of pupils about their favourite sports. The pie chart shows the proportion of pupils with their favourite sports.

What fraction of the pupils like roller blading and swimming? Express your answer in its simplest form.



Ans: _____

27) In the diagram below, KM and LM are straight lines. Find $\angle z$.

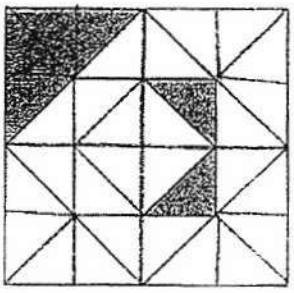


Ans: _____ °

28) Ahmad, Bala and Charlie each had some stickers. Ahmad and Bala had 38 stickers in total. Bala and Charlie had 41 stickers in total. If Ahmad and Charlie had 47 stickers altogether, how many stickers did Ahmad have?

Ans: _____

29) The figure below comprises 4 squares. Find the ratio of the shaded area to the unshaded area of the figure. Leave your answer in its simplest form.



Ans: _____

30) Study the pattern below and find the number of cans in Figure 9.

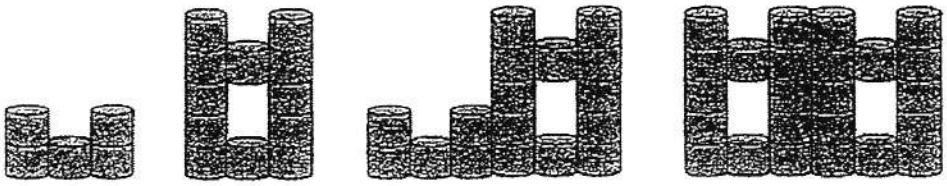


Figure 1 Figure 2 Figure 3 Figure 4

Ans: _____

- END OF PAPER 1 -

PRIMARY 6 SEMESTRAL ASSESSMENT 2 - 2012

Name : _____ ( ) Date: 19 July 2012

Class : Primary 6 ( ) Time: 10.00 a.m. – 11.40 a.m.

Parent's Signature : _____

MATHEMATICS

PAPER 2

60

INSTRUCTIONS TO CANDIDATE

1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Show your working clearly as marks are awarded for correct working.
6. You are allowed to use a calculator.

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) Moses has the same number of twenty-cent coins and fifty-cent coins. The total value is $28. How many coins does Moses have altogether?

Ans: _____

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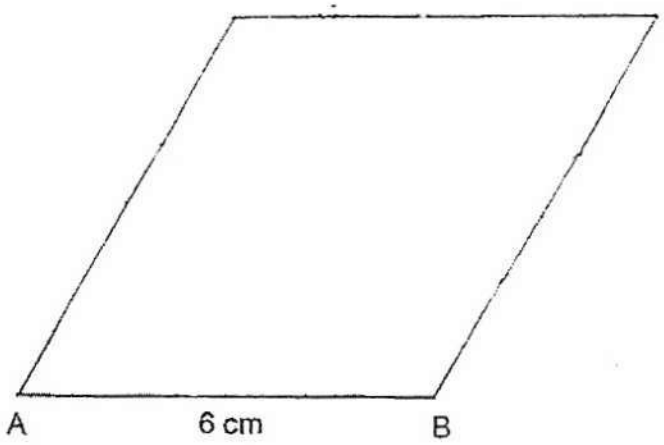
2) With the given line, draw a rhombus, ABCD, with ∠ABC = 120°.



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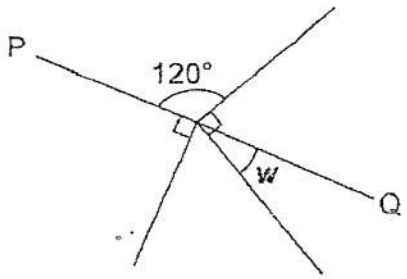
3) In the figure below not drawn to scale, PQ is a straight line. Find $\angle w$.



Ans: _____°

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4) A rectangular container measuring 0.3 m by 0.4 m by 0.5 m is filled with paint up to $\frac{3}{20}$ of the height of the container. How much paint is there in the container?

Ans: _____ ℓ

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5) A baker sold $\frac{3}{10}$ of his tarts in the morning. He sold 50% of the remainder in the afternoon. Then he had 175 tarts left. How many tarts did the baker have at first?

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) $\frac{3}{5}$ of Daniel's marbles is equal to $\frac{1}{2}$ of Jackson's marbles. If Jackson gives 20 marbles to Daniel, they will each have the same number of marbles. How many marbles do the boys have altogether?

Ans: _____ [3m]

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7) 3 women take 2 hours to pack 15 gift hampers. How long does it take 5 women to pack 65 gift hampers?

Ans: _____ [3m]

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8) Meiling had \$24. She used the money to buy 5 handkerchiefs for \$3y. She then shared the remaining money with her sister equally.

(a) How much did each handkerchief cost?

(b) How much did her sister receive?

Simplify and express your answers in terms of y.

Ans: a) _____ [1m]

b) _____ [2m]

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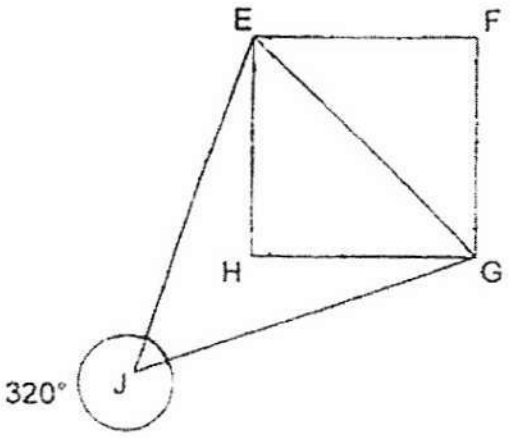
9) In the figure not drawn to scale, EFGH is a square and EJ is equal to GJ.
Find $\angle HEJ$.



Ans: _____ [3m]

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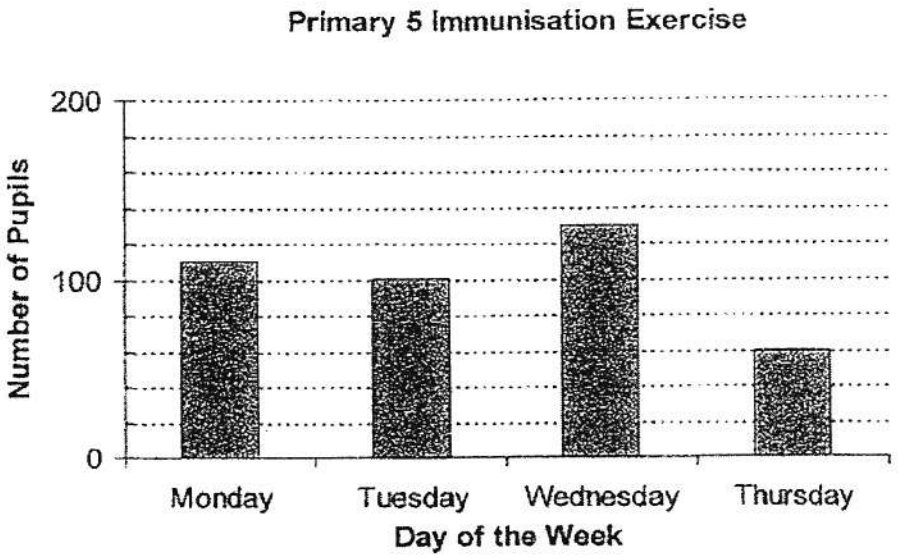
10) A school conducted an immunisation exercise for its Primary 5 pupils from Monday to Thursday. Each of them had their immunisation on one of the four days.
The bar graph below shows the number of pupils that had immunisation from Monday to Thursday.



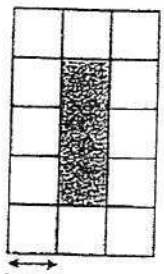
(a) What percentage of the pupils had their immunisation on Wednesday?

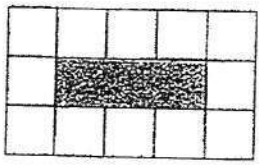
(b) Express the number of pupils who had their immunisation on Thursday as a fraction of those who had theirs on Tuesday. Leave your answer in its simplest form.

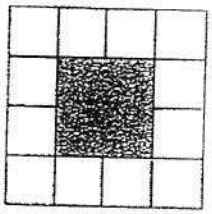
Ans: a) _____ [2m]

b) _____ [1m]

11) Jamie wants to make a photo frame using square tiles as borders. The diagram below shows 3 ways where 12 tiles can be put together. If she uses 40 tiles, find the largest possible shaded area.





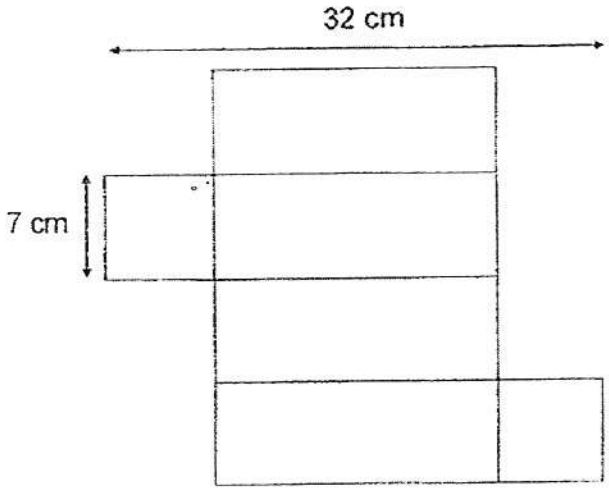


Ans: _____ [3m]

12) The net of a rectangular tank with a square base shown below is not drawn to scale.

a) Find the greatest number of 3-cm cubes that can be fitted into the tank.

b) How much space is left in the tank after the maximum number of cubes have been put in?



Ans: a) _____ [2m]

b) _____ [2m]

13) Bottle X and Bottle Y contained different amount of water. If Bottle X leaks 10 mℓ of water each hour and Bottle Y leaks 5 mℓ of water each hour, Bottle X would still have 200 mℓ of water left when Bottle Y becomes empty.
If Bottle X loses 5 mℓ of water each hour and Bottle Y loses 10 mℓ of water each hour, Bottle X would still have 590 mℓ of water left when Bottle Y is empty. How much water is there in Bottle X?

Ans: _____ [4m]

14) Muthu had some 20¢ coins and $1 coins in the ratio of 4 : 1 in his wallet. He took out three $1 coins and exchanged them for 20¢ coins. The ratio of the number of 20¢ coins to the number of $1 coins became 13 : 1. Find the sum of money Muthu had in his wallet.

Ans: _____ [4m]

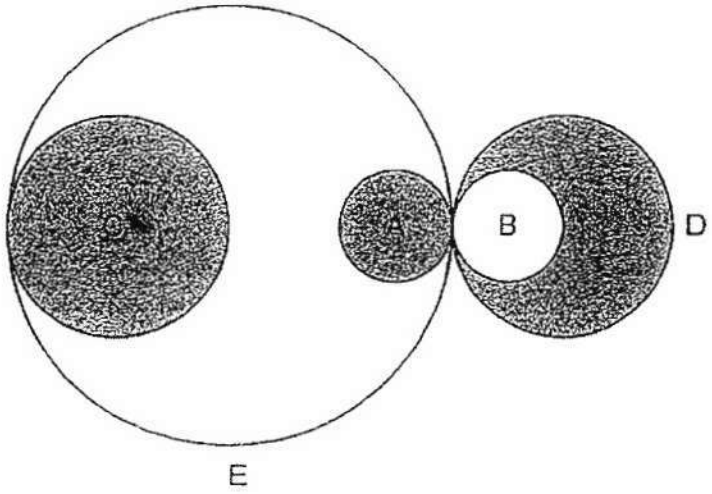
15) At first, 30% of the beads in a bag were blue and the rest were yellow. There were 128 more yellow beads than blue beads. Some yellow beads were taken out, reducing its number by 25%. Find the ratio of the number of blue beads to the number of yellow beads in the end. Leave your answer in its simplest form.

Ans: _____ [5m]

16) At first, Jerry had \$200 less than Ben. Then Ben gave Jerry $\frac{1}{4}$ of his money. In return, Jerry gave Ben $\frac{1}{5}$ of his money. Later, Ben gave $\frac{1}{2}$ of his money to Jerry. In the end, Jerry had \$700 more than Ben. How much did Jerry have at first?

Ans: _____ [5m]

17) The figure below comprises 5 circles. Circle A is identical to Circle B. Circle C is identical to Circle D.
The ratio of the area of Circle A to the area of Circle C to the area of Circle E is 1 : 4 : 16. If the diameter of Circle C is 8 cm, find the total perimeter of shaded regions. Leave your answer in terms of π.



Ans: _____ [5m]

18) Mr and Mrs Pratip left their house at the same time and travelled in opposite directions. Mrs Pratip drove at a speed 16 km/h slower than Mr Pratip. 30 minutes later, Mr Pratip arrived at his destination while Mrs Pratip had only completed $\frac{1}{3}$ of her journey. They were 100 km apart.

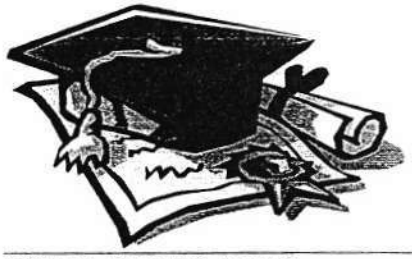
(a) Find Mr Pratip's speed.

(b) Find their total distance apart when Mrs Pratip had reached her destination.

Ans: a) _____ [2m]

b) _____ [3m]

- END OF PAPER 2 -



ANSWER SHEET

EXAM PAPER 2012

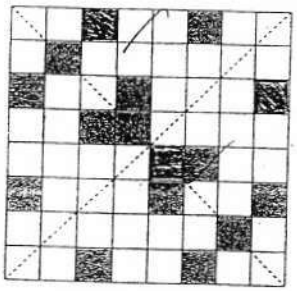
SCHOOL : TAO NAN
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : SA2

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

16)7.09 **17)37.5%** **18)1/400** **19)$4.45** **20)16**

21)



22)1.52 **23)B** **24)70**

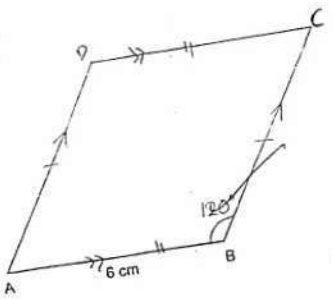
25)5cm **26)11/20** **27)32°**

28)22 **29)3:13** **30)53**

Paper 2

1) 20 + 50 = 70
28 x 100 = 2800
2800 ÷ 70 = 40
40 x 2 = 80

2)



3)180° − 120° = 60°
∠w= 90° − 60° = 30°

4)30 x 40 x 50 x 3/20 = 9000
9000cm3 = 9L

5)100% - 50% = 50%
175÷50 x 100 = 350
1- 3/10 = 7/10
350 ÷7/10 = 500

6)Daniel : Jackson
5 : 6

6 − 5 = 1
1÷2 = ½
20 x 2 = 40
40 x (6+5) = 440
They have 440 marbles.

7)

women	hours	gift hampers
3	2	15
1	2	5
5	5 12	65

They will take 5.2h

8)a)3y÷5 = 3y/5
It costs $(3y/5)
b)$(24 - 3y) \div 2 = \frac{24 - 3y}{2}$
She receive $(24-3y/2)

9)∠EJG = 360° − 320° = 40°
∠JEG = (180° − 40°) ÷2 = 70°
∠HEG = 90° ÷2 = 45°
∠HEJ = 70° − 45° = 25°
It is 25°

10)a)110 + 100 + 130 + 60 = 400
130/400 = 32.5%
The percentage is 32.5%.
b)60/100 = 3/5
It is 3/5

11)40 - 4 = 36
36/4 = 9
9 x 9 = 81
It is 81cm2

12)a)32 – 7 – 7 = 18
7÷3 = 2 1/3 ≈2
18÷3 = 6
2 x 2 x 6 = 24
It is 24
b)24 x (3x3x3)= 648
7 x 7 x 18 = 882
882 – 648 = 234
There is 234cm3 of space left.

13)3u = 590 – 200 = 390
U = 390÷ 3 = 130
590 + 130 = 720ml

14)3 x 1 = 3
3÷0.2 = 15
4u + 15 = 13p
1u-3 = 1p
13u – 39 = 13p
4u + 15 = 13u – 3p
39 + 15 = 54
54÷(13 - 6) = 6
6 x 4 = 24
24 x 0.2 = 4.8
6 x 1 = 6
6 + 4.8 = $10.80

15)100% - 30% = 70%
70% - 30% = 40%
128÷40 x 30 = 96
128÷40 x 70 = 224
100% - 25% = 75%
224 x 75% = 168
Blue : Yellow
96 : 168
4 : 7
It is 4:7

16)Jerry→10u

Ben→10u + 200

200 x ¼ = 50

10u x ¼ = 2.5u

10u + 2.5u + 50 = 12.5u + 50

200 + 10u – 2.5u – 50 = 7.5u + 150

12.5u + 50 x 1/5 = 2.5u + 10

7.5u + 150 + 2.5u + 10 = 10u +160

50 + 12.5u – 2.5u – 10 = 10u + 40

(10u+160) ÷2 = 5u + 80

10u + 160 – 5u – 80 = 5u + 80

10u + 40 + 5u + 80 = 15 + 120

15u + 120 – 5u – 80 = 10u + 140

700 – 40 = 660

10u = 660

He had $660

17)8÷2 = 4

π x 4 x 4 = 16 π

16 π ÷4 = 4 π

4 π ÷ π = 4

2 x 2 = 4

2 + 2 = 4

4 x π = 4 π

4 π x 2 = 8 π

8 π x 2 = 16 π

8 π + 16 π = 24 π cm

18)a)100 x 2 = 200

200 – 16 = 184

184 ÷2 = 92

92 + 16 = 108

It is 108km/h

b)108÷2 = 54

92÷2 = 46

46 x 3 = 138

138 + 54 = 192

The distance is 192km.