NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2 – 2014
PRIMARY 5

MATHEMATICS

Paper 1

Section A: 15 Multiple Choice Questions (20 marks)

Section B: 15 Short Answer Questions (20 marks)

Total Time for Paper 1: 50 minutes

INSTRUCTION TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the 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 for Questions 1-15.
6. You are not allowed to use calculator for Paper 1.

Marks Obtained

Paper 1	Booklet A		/ 40
	Booklet B		
Paper 2			/ 60
Total			/ 100

Name :_____ ( )

Class : P 5_____

Date : 29 October 2014 Parent's Signature :_____

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Section A (20marks)

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.

1. *Round off 70 255 to the nearest hundreds.*

   (1) 70 000

   (2) 70 200

   (3) 70 260

   (4) 70 300

2. What is the value of $36 \div 3 \times 2 + 3$?

   (1) 60

   (2) 27

   (3) 9

   (4) 4

3. The length of one side of a cube is 4 cm. What is the volume of the cube?

   (1) 8 cm^3

   (2) 16 cm^3

   (3) 32 cm^3

   (4) 64 cm^3

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4. What is the value of $\frac{1}{8} - \frac{1}{11}$?

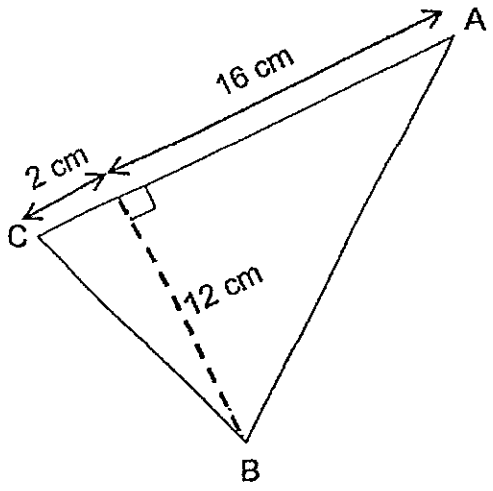
(1) $\frac{3}{88}$

(2) $\frac{3}{19}$

(3) $\frac{3}{11}$

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

5. In the figure below, not drawn to scale, is a triangle. What is the area of triangle ABC?



(1) 96 cm^2

(2) 108 cm^2

(3) 120 cm^2

(4) 180 cm^2

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6. How many eighths are there in $\frac{3}{4}$?

(1) 32

(2) 24

(3) 6

(4) 5

7. Which one of the following is equivalent to $\frac{12}{5}$?

(1) $2\frac{2}{5}$

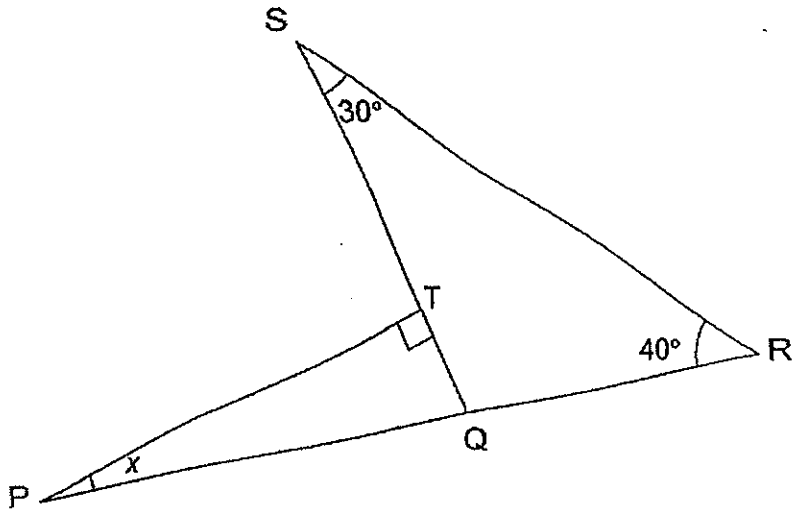
(2) $\frac{12}{7}$

(3) $1\frac{2}{5}$

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

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8. The diagram below shows 2 triangles. Triangle QPT is a right-angled triangle and PQR is a straight line. Find $\angle x$.



(1) 10°

(2) 20°

(3) 70°

(4) 110°

9. Jasmine saved a total of $20.25 last week. She saved 4 times as much money this week. How much money did she save altogether for the 2 weeks?

(1) $60.75

(2) $81.00

(3) $101.25

(4) $141.75

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10. The ratio of the number of cupcakes to number of chicken pies was 4 : 3. There were 24 cupcakes. How many cupcakes and chicken pies were *there altogether?*

(1) 18

(2) 32

(3) 42

(4) 56

11. Mandy, Nancy and Oscar shared some candies in the ratio 1 : 5 : 2. What percentage of the candies did Nancy have?

(1) 12.5 %

(2) 25 %

(3) 50 %

(4) 62.5 %

12. Roger was given 3 durians. The mass of the first durian was 2.2 kg more than the second one. The mass of the third durian was 3.3 kg. If the total mass of the 3 durians was 7 kg, what was the mass of the second durian?

(1) 0.75 kg

(2) 1.45 kg

(3) 1.5 kg

(4) 2.95 kg

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13. Box A contained 128 marbles. Box B contained 42 marbles. Jack added an equal number of marbles to each box. Now, Box A contained twice as many marbles as Box B. How many marbles did Jack add to each box?

(1) 44

(2) 86

(3) 88

(4) 172

14. Sammy is 9 years younger than Tammy. In 3 years' time, their total age will be 45 years. How old is Sammy now?

(1) 15 years old

(2) 18 years old

(3) 21 years old

(4) 30 years old

15. The pattern below is formed with the following shapes.



What is the 209th shape in the above pattern?

(1) 

(2) 

(3) 

(4) 

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Section B (20 marks)

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. The table below shows the number of packets of cookies sold by 6 scouts during a carnival. How many scouts sold more than 15 packets of cookies?

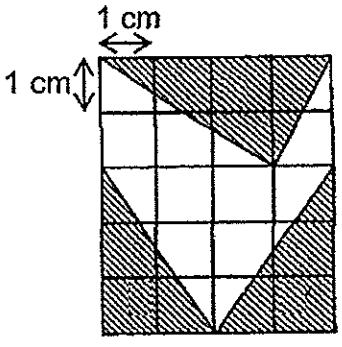
Name of scouts	Adam	Ben	Charles	Dan	Eugene	Freddy
Number of packets sold	9	32	15	28	20	8

Ans: _____

17. Find the value of $\frac{2}{7} \div 10$. Give your answer in the simplest form.

Ans: _____

18. In the diagram below, what is the unshaded area?



Ans: _____ cm^2

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19. In a class of 80 pupils, 52 are girls. What is the ratio of the number of boys to the number of girls?

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Ans: _____

20. A number with 2 decimal places is 65 when rounded to the nearest whole number. What is the biggest possible value of this number?

Ans: _____

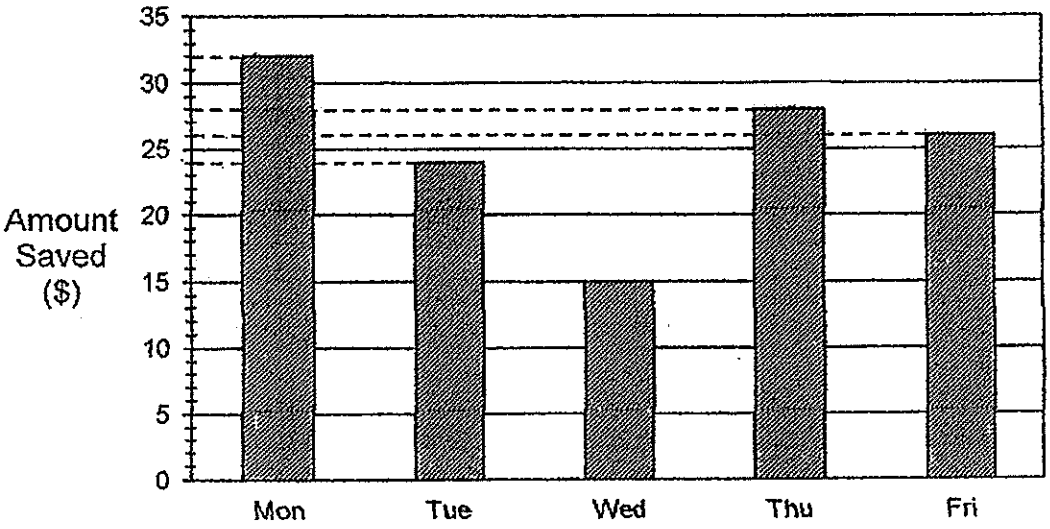
21. In a box, 40% of the pens are red and the rest are blue and green. There is an equal number of blue and green pens. What percentage of all the pens are blue?

Ans: _____ %

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The bar graph below shows the amount saved by Sunny from Monday to Friday. Study the graph carefully and answer **questions 22 and 23.**

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22. How much did Sunny save from Monday to Friday?

Ans: $ _____

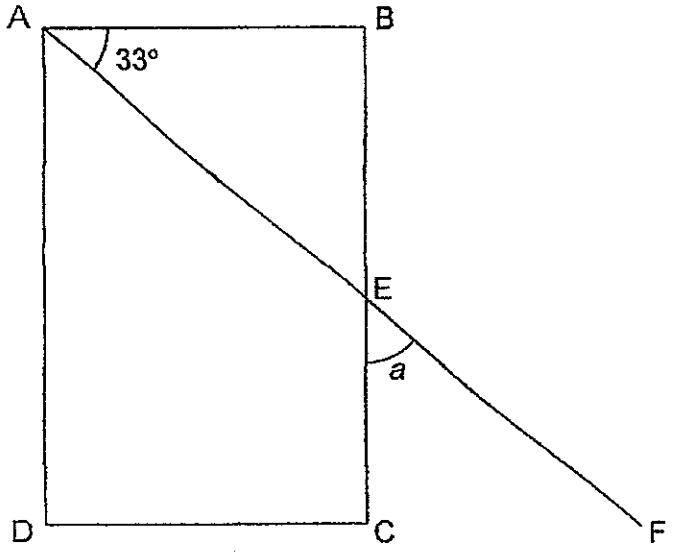
23. Sunny wants to buy a bicycle that costs $280. How much more money does he need to save?

Ans: $ _____

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24. The following figure is not drawn to scale. ABCD is a rectangle and AEF is a straight line. Find $\angle a$.

Do not write in this space



Ans: _____ °

25. A container can hold 709 ml of water. What is the total capacity of 10 such containers? Give your answer in litres.

Ans: _____ litres

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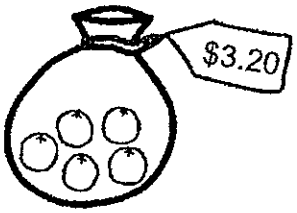
Questions 26 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For each questions which require units, give your answers in the units stated.
[10 marks]

Do not write in this space

26. Class 5N has 20 pupils and scored an average of 75 marks for a Math test. Class 5M has 30 pupils and scored the same total as class 5N for the same Math test. What is the average score of the pupils in class 5M?

Ans: _____

27. A fruit stall sells oranges in packets of 5. Each packet is sold at $3.20. Sunny has $10. What is the maximum number of oranges that Sunny can buy?



Ans: _____

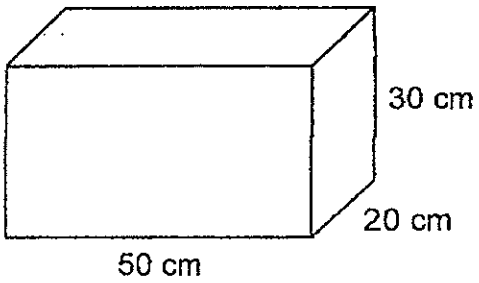
28. A sofa set costs $490 after a discount of 30%. What is the original price of the sofa set?

Ans: $ _____

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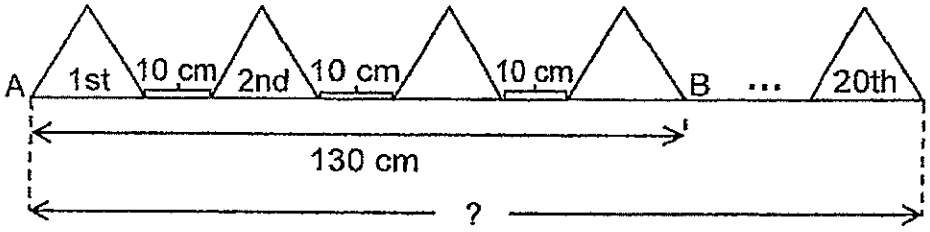
29. An empty tank measures 50 cm by 20 cm by 30 cm. Some water is poured into it such that the water level reaches 28 cm. How much more water is needed to fill the tank completely?

Do not write in this space



Ans: _____ cm^3

30. In the diagram below, 20 identical equilateral triangles are pasted along the length of a wall. The space between one triangle to the next triangle is 10 cm. Point A to point B measures 130 cm. Find the length of the wall as indicated in the diagram below.



Ans: _____ cm

END OF PAPER

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NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2 -- 2014
PRIMARY 5

MATHEMATICS

Paper 2

Total Time for Paper 2: 1 hour 40 minutes

5 Short Answer Questions (10 marks)

13 Structured / Long Answer Questions (50 marks)

INSTRUCTION TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully
4. Answer all questions and show your workings clearly.
5. *You are allowed to use a calculator.*

Marks Obtained

Total		/ 60

Name : _____ ( )

Class : P 5_____

Date : 29 October 2014 Parent's Signature : _____

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Paper 2 (60 marks)

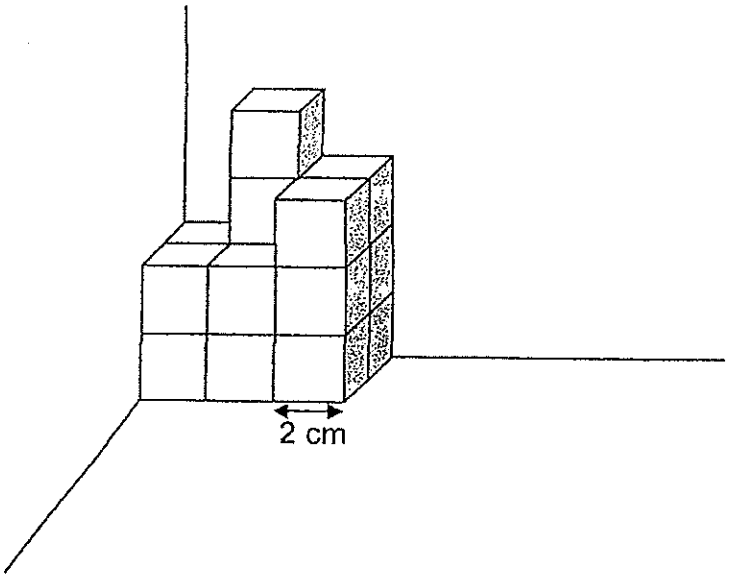
Questions 1 to 5 carry 2 marks each. Show your workings clearly in the space below it and write your answer in the space provided. For questions which require units, give your answers in the units stated. [10 marks]

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1. The ratio of the number of apples to the number of oranges to the number of pears is 8 : 6 : 3. If there are 138 more oranges than pears, how many apples are there?

Ans: _____

2. The solid figure below is made up of identical cubes.
What is the volume of the solid figure?



Ans: _____ cm^3

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3. The usual price of a television set was $3100. At the Great Singapore Sale, it was sold at a discount of 20%. What was the discounted price of the television set?

Do not write in this space

Ans : $ _____

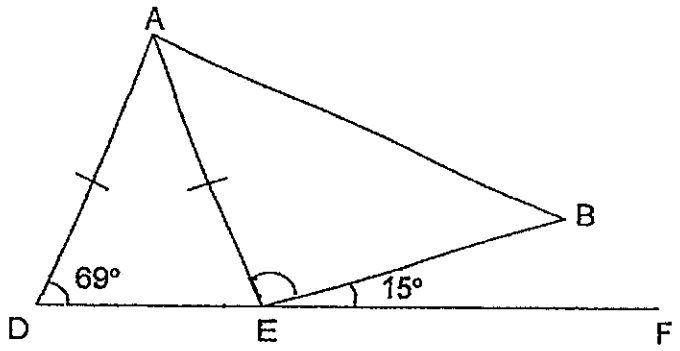
4. A fish tank has 10 litres of water. Jack turns on a tap to fill the tank with more water. Every 1 minute, 13 litres of water flow from the tap into the tank. What will be the volume of water in the tank after 15 minutes?

Ans:_____ litres

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5. In the figure below, not drawn to scale, DEF is a straight line.
AD = AE. Find ∠ AEB.

Do not write in this space



Ans : _____ °

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For each question from 6 to 18, show your workings clearly in the space below each question and write your answer and the appropriate units in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question.

Do not write in this space

6. Yanni and Zeus had $66.75 altogether. After Yanni spent half of his money and Zeus spent $20.25, they had an equal amount of money left. How much money did Zeus have at first?

Ans: _____ [3]

7. Sage had $\frac{3}{5}$ as many jellybeans as Rosemary. After Rosemary gave Sage $\frac{3}{5}$ of her jellybeans, Sage had 160 more jellybeans than Rosemary. How many jellybeans did they have altogether?

Ans: _____ [3]

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8. Anna, Belle and Dawn had a total of 156 stamps. Anna lost 22 stamps and Belle bought 13 more stamps. Dawn's mother gave her some stamps and she had 3 times the number of stamps she originally had. In the end, all of them had an equal number of stamps. How many stamps did Anna have at first?

Do not write in this space

Ans: _____ [3]

9. The table below shows the water rates that Singapore Power charges for domestic users.

Water rates (cubic metre)	Charges
First 15 m^3	\$1.25 per m^3
Next 15 m^3	\$1.35 per m^3
Above 30 m^3	\$ 2.65 per m^3

Mrs Lee's family used 39 m^3 of water in September.
How much did she pay for her water bill for that month?

Ans: _____ [3]

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10. Tom and Jerry shared $27. When each boy received $4, the ratio of the amount of money that Tom had to the amount that Jerry had would become 3 : 4. How much money did Tom have at first?

Do not write in this space

Ans:_____ [3]

11. Wilber had twice as many marbles as Homer at first. Wilber then gave 33 marbles to Alice. Wilber now has 16 more marbles than Homer.

a) How many marbles does Wilber have now?
b) How many more marbles should Wilber give to Alice so that Wilber and Homer's average number of marbles will be 54?

Ans: a)_____ [2]

b)_____ [2]

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12. In a stadium, $\frac{5}{11}$ of the chairs are green. $\frac{7}{12}$ of the remaining chairs are blue and the rest are red.

a) If there are 125 red chairs, how many blue chairs are there?

b) How many chairs are there in the stadium altogether?

Do not write in this space

Ans: (a)_____ [2]

(b)_____ [2]

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13. Mrs Heng mixed 6 litres of blue paint with 9 litres of water in a large tank. Then she poured the mixture into as many identical smaller containers, each measuring 12 cm long, 7 cm wide and 5 cm high. All of the containers were filled to the brim with some mixture remaining in the large tank.

(a) How many such containers did she fill at most?

(b) How much of the mixture was left in the large tank?

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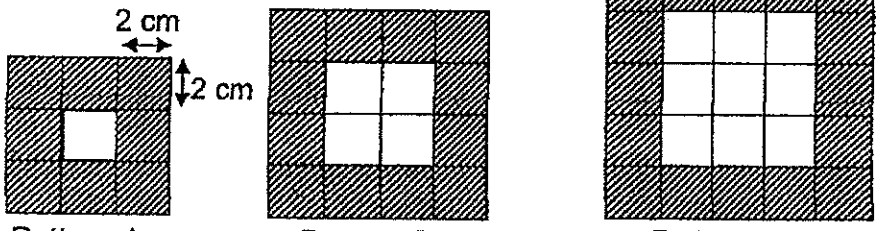
Ans: (a)_____ [3]

(b)_____ [1]

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14. Look at the patterns shown below. They are made up of identical 2cm by 2cm shaded and unshaded square tiles.

Do not write in this space



Pattern 1 Pattern 2 Pattern 3

Pattern	Number of shaded tiles	Total area of shaded tiles ($cm^{2)}$
1	8	32
2	12	48
3	16	64
. . .	. .	. . .
6	a(i)_____[1]	a(ii)_____[1]

(a) Complete Pattern 6 by filling a(i) and a(ii) in the table above.

(b) Which pattern number will have 176 cm^2 as the total area of its shaded tiles?

Ans: (b)_____[2]

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15. Joan and Maria have some savings. $\frac{3}{5}$ of Joan's savings is equal to $\frac{2}{7}$ of Maria's savings. The difference in their savings is equal to $\frac{1}{2}$ of Betty's savings. Joan saves $24 less than Betty.

(a) Find the ratio of Joan's savings to Maria's savings to Betty's savings.

(b) Find the total savings of the three girls.

Do not write in this space

Ans: (a) _____ [2]

(b) _____ [2]

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16. A farmer has 1200 animals on his farm. 20% of them are chicken. 65% of the remainder are ducks and the rest are cows.

(a) How many ducks are there on the farm?

(b) What percentage of the farm animals are cows?

Do not write in this space

Ans: (a) _____ [3]

(b) _____ [2]

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17. Mrs Gomez baked some cookies and put them equally into 9 jars. She then took out 20 cookies from each jar and repacked them equally into 5 packets. The total number of cookies left in the 9 jars was equal to the total number of cookies in 3 of the jars at first. Find the difference between the number of cookies in a packet and the number of cookies in a jar at the end?

Do not write in this space

Ans: _____ [5]

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18. Two brothers, Andrew and Keene, shared a sum of money equally. They each spent an equal amount of money daily. The total amount spent each day was the same as the previous day.

At the end of the 5th day, $\frac{7}{12}$ of the total sum of money was left.

At the end of the 8th day, $120 was left.

a) What fraction of the total sum of money was spent by Andrew each day?

b) What was the total sum of money they shared at first?

Do not write in this space

Ans: a) _____ [2]

b) _____ [3]

End-of-Paper

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Semestral Assessment 2 2014
Primary 5

1) 4
2) 2
3) 4
4) 1
5) 2
6) 3
7) 1
8) 2
9) 3
10) 3
11) 4
12) 1
13) 1
14) 1
15) 2
16) 3
17) 1/35
18) 10
19) 7:13
20) 65.49
21) 30%
22) $125
23) $155
24) 57 °
25) 7.09 litres
26) 50
27) 15
28) $700
29) 2000 cubic cm
30) 130-30 = 100cm
    100/4 = 25cm
    20*25 = 500cm
    19*10 = 190cm
    500+190 = 690cm

Paper 2

1) 138/3 = 46
   46*8 = 368 apples

2) 2*2*2 = 8 cm^3
   16*8 = 128 cm^3

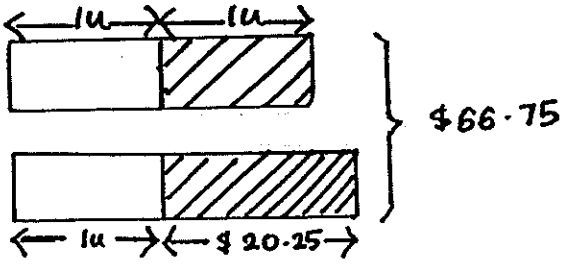
3) 80/100*3100 = $2480

4) 13*15 = 195 litres
   195+10 = 205 litres

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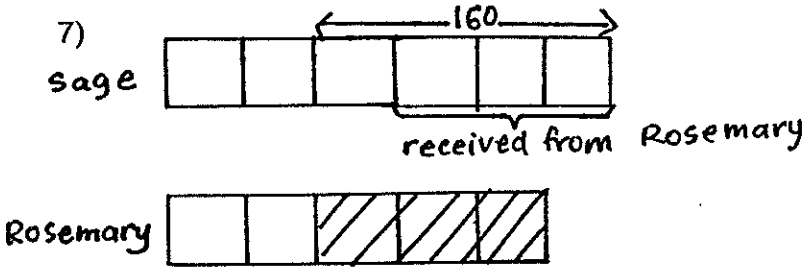
5) Angle DEA = 69 °
(base angle of isosceles triangle)
Angle AEB = 180-69-15 = 96 °

6)



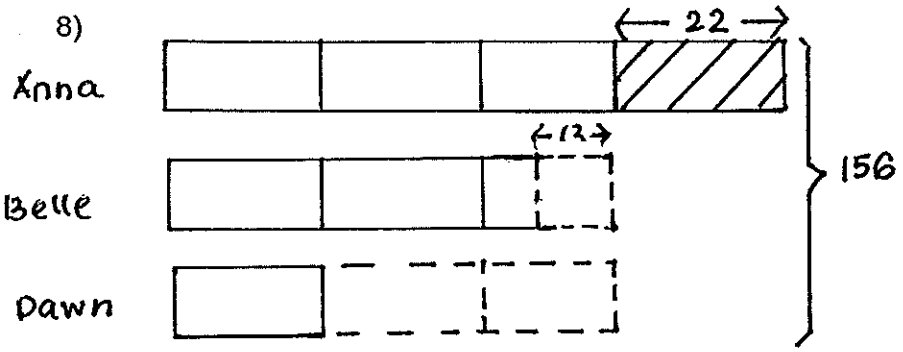
66.75-20.25 = $46.50
46.50/3 = $15.50
$15.50+$20.25 = $35.75

7)



4units --> 160
8units --> 8/4*160 = 320 jellybeans

8)



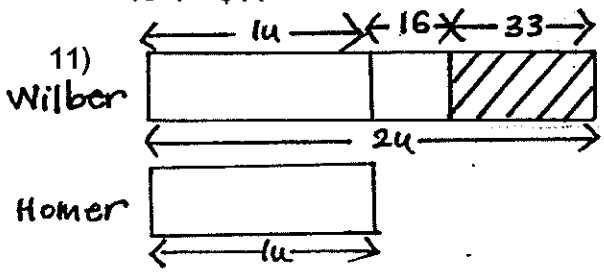
156-22+13 = 147
147/7 = 21
21*3 = 63
63+22 = 85 stamps

9) 39-15-15 = 9 m^3
15*1.25 = $18.75
15*1.35 = $20.25
9*2.65 = $23.85
$18.75+$20.25+$23.85 = $62.85

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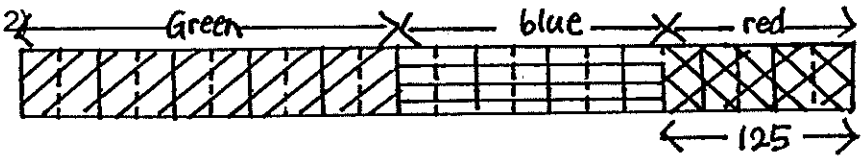
10) 27+4+4 = $35
35/7 = $5
5*3 = $15
15-4 = $11

11)



a) 33+16 = 49
49+16 = 65 marbles
b) 65+49 = 114
54*2 = 108
114-108 = 6 marbles

12)



a) 125/5 = 25
25*7 = 175 blue chairs
b) 25*22 = 550 chairs

13) 6+9 = 15 litres = 15 000 cm^3
12*7*5 = 420 cm^3
a) 15000/420 = 35/5/7 containers
b) 35*420 = 14 700 cm^3
15 000-14 700 = 300 cm^3

14ai) 28, aii) 112
b) 176/16 = 11
11-1 = 10

15) Joan --> 3/5 = 6/10
Maria --> 2/7 = 6/21
(Make the numerator the same)
21units-10units = 11units
Betty --> 11units*2 = 22units
a) Joan : Maria : Betty
10 : 21 : 22
b) 10units+21units+22units = 53units
22units-10units = 12units
12units --> $24
53units --> 53/12*24 = $106

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16) 65%*80% = 52 % (ducks)

a) 52/100*1200 = 624 ducks

b) 100%-20%-52% = 28% (cows)

17) 9*20 = 180 (number of cookies removed)
180/5 = 36
6units --> 180
1unit --> 1/6*180 = 30
30-20 = 10
36-10 = 26 cookies

18) (5/12)/5 = 1/12

a) (1/12)/2 = 1/24

b) Total spending in 3 days --> 3*1/12 = 1/4
7/12-1/4 = 1/3
1unit --> $120
3units --> 3*$120 = $360

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