RAFFLES GIRLS' PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 1
MATHEMATICS (PAPER 1)
PRIMARY 6

Name: _____ ( )

Form Class: P6 _____

Math Teacher: _____

Date: 8 May 2017

Duration: 50 min

Your Score	
Paper 1 (Out of 40 marks)	
Paper 2 (Out of 60 marks)	
Overall (Out of 100 marks)	

INSTRUCTIONS TO CANDIDATES

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer ALL questions and show all working clearly.
4. NO calculator is allowed for this paper.

SECTION A (20 marks)

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 your answer (1, 2, 3 or 4) on the OAS provided. All diagrams are not drawn to scale.

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1. In 690 045, the value of the digit 9 is _____.

(1) 90

(2) 900

(3) 9000

(4) 90 000

2 Arrange the following fractions from the smallest to the largest.

$$\frac{7}{12}, \frac{5}{6}, \frac{3}{10}$$

(1) $\frac{5}{6}, \frac{3}{10}, \frac{7}{12}$

(2) $\frac{7}{12}, \frac{3}{10}, \frac{5}{6}$

(3) $\frac{3}{10}, \frac{5}{6}, \frac{7}{12}$

(4) $\frac{3}{10}, \frac{7}{12}, \frac{5}{6}$

3. Mrs Lee has a ribbon measuring 90.7 cm. She wants to cut it into pieces of 5 cm each. What is the maximum number of pieces she can cut from it?

(1) 18

(2) 19

(3) 450

(4) 453

4. Find the value of $12p + 9 - 4p$ when $p = 7$.

(1) 47

(2) 65

(3) 89

(4) 93

5. There were 280 pupils at a sports camp, 160 pupils wore glasses.
Find the ratio of the number of pupils who wore glasses to the number of pupils who did not wear glasses.

(1) 7 : 3

(2) 7 : 4

(3) 3 : 4

(4) 4 : 3

6. During a sale, cups were sold in sets of 3 for $1.75. John bought 18 cups. How much did he pay?

(1) $10.50

(2) $11.25

(3) $31.50

(4) $94.50

7. Express 17.075 as a fraction.

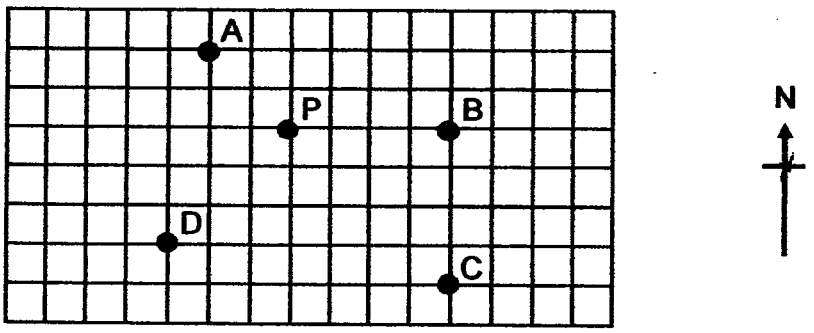
(1) $17\frac{1}{40}$

(2) $17\frac{3}{40}$

(3) $17\frac{1}{4}$

(4) $17\frac{3}{4}$

8. In the square grid below, Felicia wanted to plant a tree at south-east of point P. At which point should Felicia plant the tree?



(1) A

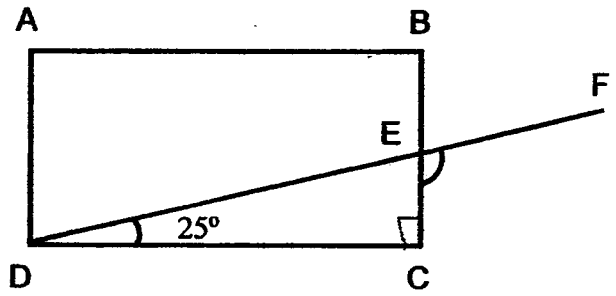
(2) B

(3) C

(4) D

9. In the figure below, ABCD is a rectangle and DEF is a straight line.

Find $\angle CEF$.



(1) 115°

(2) 125°

(3) 145°

(4) 155°

10. There were 24 male volunteers at a charity event. There were 12 more female volunteers than male volunteers. What percentage of the volunteers were female?

(1) 20%

(2) 40%

(3) 50%

(4) 60%

11. At a mass swimming event, swimmers were divided equally into Team A and Team B. In Team A, the ratio of the number of men to the number of women was 3 : 1. In Team B, the ratio of the number of men to the number of women was 7 : 5. Find the ratio of the number of men to the number of women at the mass swimming event.

(1) 1 : 3

(2) 2 : 1

(3) 3 : 1

(4) 5 : 3

12. $4.976 = 4 + 9 \times 0.1 + 6 \times 0.01 + \square \times \frac{1}{1000}$

What is the number in the box?

(1) 6

(2) 7

(3) 16

(4) 70

13. Which of the following is **closest** to 10?

(1) $\frac{49}{5}$

(2) $9\frac{4}{15}$

(3) $10\frac{3}{4}$

(4) $\frac{85}{8}$

14. Benedict spends $\frac{2}{5}$ of his monthly salary on food, $\frac{4}{5}$ of the remainder on transport and saves the rest. What percentage of his monthly salary does he save?

(1) 12%

(2) 24%

(3) 32%

(4) 48%

15. Jerry packed 96 English books and 60 Chinese books into as many bags as possible, with no remainder. He placed the same number of books in each bag. The number of English books in each bag was the same. How many bags of books did he pack?

(1) 5

(2) 8

(3) 12

(4) 13

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.
All diagrams are not drawn to scale. Answers in fractions or ratio must be expressed in the simplest form.

16. Find the average of all the factors of 15.

Ans : _____

17. Find the value of $4 \times 7 - (12 \times 2) \div 3 + 5$

Ans : _____

18 Mandy's saving is $\frac{2}{5}$ of Andy's saving. Andy saves $5690, how much do they save altogether?

Ans : $_____

19. Jenny had $1\frac{2}{5}$ kg of rice. She cooked $\frac{1}{2}$ kg of it.
How much rice had she left?

Ans : _____kg

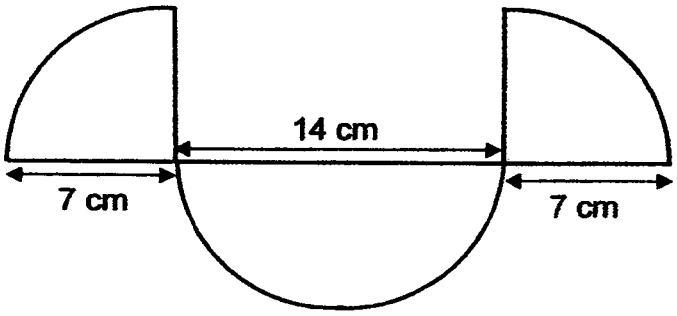
20. Express $2\frac{3}{8}$ as a decimal.

Ans : _____

21. Express 5 km 30 m in kilometres.

Ans : _____ km

22. The figure below is made up of 2 identical quadrants and 1 semi-circle. Find the perimeter of the figure. (Take $\pi = \frac{22}{7}$)

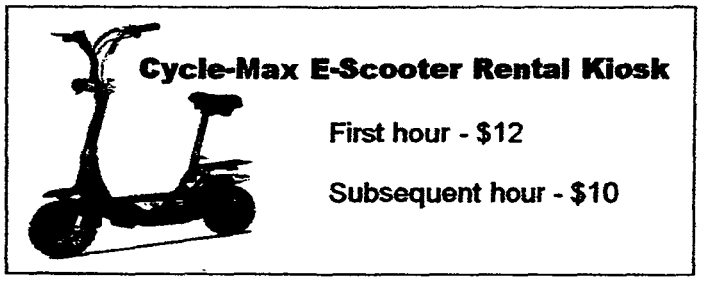


Ans : _____ cm

23. Jane is *y* years old. Mary is twice as old as Jane. Lynn is 5 years older than Mary. What is Lynn's age in terms of *y*?

Ans : _____

24.



5 friends rented one electric scooter for 3 hours and shared the rental cost equally. How much did each of them have to pay?

Ans : $_____

25. June needs 1 h 25 min to travel from her house to the airport. At what time must she leave her house if she has to reach the airport at 9.15 a.m.?

Ans : _____ a.m.

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 space provided.
For questions which require units, give your answers in the units stated.
All diagrams are not drawn to scale. Answers in fractions or ratio must be expressed in the simplest form.

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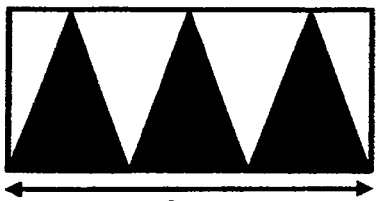
26. The figure below is made up of 1 rectangle and 3 identical shaded triangles. The total area of the 3 shaded triangles is 18 cm^2, find the height of one triangle.



Ans : _____ cm

27. At a funfair, Mrs Chan sold a total of 52 kg of popcorns. Each large packet weighed 500g and each small packet weighed 300g. An equal number of large and small packets of popcorns were sold. How many packets of popcorns did Mrs Chan sell altogether?

Ans : _____

28. $4\frac{3}{8}$ ℓ of oil was poured into 7 identical containers without spilling.

Find the volume of oil in each container.

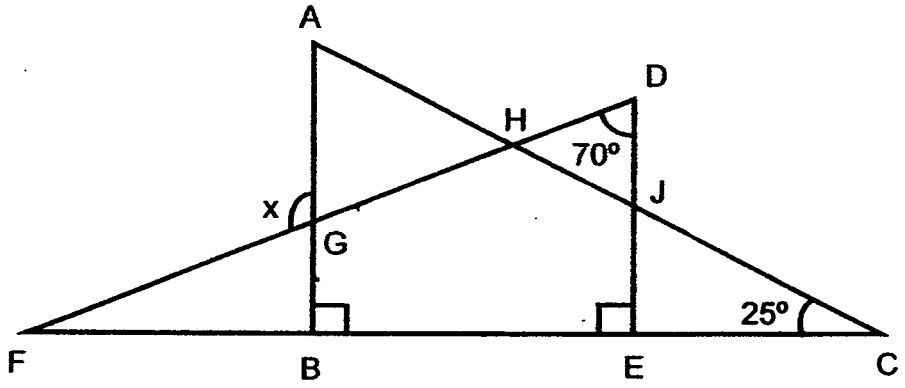
Ans : _____ ℓ

29. $10.7 + (11.3 - 3) \times 5 \square 5 = 19$

Fill in the box with +, −, × or ÷

Ans : _____

30. The figure below is made up of 2 right-angled triangles, ABC and DEF. Given that ∠FDE is 70° and ∠ACB is 25°, find ∠x.



Ans : _____ °

End of Paper-
☺ Please check your work carefully ☺

Setters : Ho Kai Huat, Jacqueline Seto, Wirda

SEMESTRAL ASSESSMENT 1
MATHEMATICS (PAPER 2)
PRIMARY 6

Name: _____ ( )

Form class: P6 _____ Math Teacher: _____

Date: 8 May 2017 Duration: 1 h 40 min

Your Paper 2 Score (Out of 60 marks)	

INSTRUCTIONS TO CANDIDATES

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer **ALL** questions and show all working clearly.
4. The use of calculator is allowed for this paper.

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.
Figures are not drawn to scale. (10 marks)

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1. Alice wanted to use the recipe below to make 30 cookies.

Cookies Recipe for 12 cookies
Flour : 220 g
Butter : 140 g
Sugar : 80 g

How much flour would she need?

Ans : _____ g

2. Mrs Tan prepared 8y cupcakes for a party. She gave 5 cupcakes to each child and had 2y cupcakes left. How many children were there at the party? Express the answer in terms of y.

Ans : _____

3. Amy baked some tarts and placed them on plate A and plate B in the ratio of 3 : 2. Then she repacked the tarts on plate A into a big box and a small box in the ratio of 4 : 1. There were 9 tarts in the small box.
How many tarts did Amy bake at first?

Ans : _____

4. Raju and Prisha started jogging at the same time from one end of a park connector. Raju's average speed was 15 m/min faster than Prisha's. When Raju reached the other end of the park connector 50 min later, Prisha only completed $\frac{9}{10}$ of the journey.

What was the total distance of the park connector?

Ans : _____ m

5. The mass of a floor mat was 350 g when it was dry. After it was soaked in water, its mass increased to 980 g. Find the percentage increase in the mass of the floor mat after it was soaked in water.

Ans : _____ %

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. Helen had $\frac{5}{7}$ as many beads as Kelly. Kelly had $\frac{2}{3}$ as many beads as Angela. If Angela had 242 more beads than Helen, how many beads did Kelly have?

Ans: _____ [3]

7. There were 1583 fishes in an aquarium. After $\frac{1}{2}$ of the swordtail fish and 218 of the guppies were sold, the ratio of the number of swordtail fish to the number of guppies left became 4 : 5. How many swordtail fish were sold?

Ans : _____ [3]

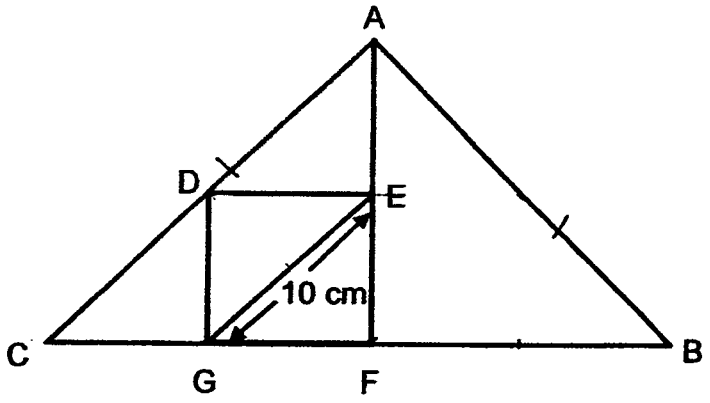
8. Mrs Hong baked 4 times as many vanilla muffins as banana muffins. She gave 115 vanilla muffins to her neighbours and baked another 65 banana muffins. In the end, she had 36 more banana muffins than vanilla muffins. How many muffins did Mrs Hong bake altogether?

Ans : _____ [3]

9. In a supermarket, 3 kg of fish cost $45. 1 kg of prawns cost twice as much as 1 kg of fish. Charlotte bought 3 kg of fish and 4 kg of prawns from the supermarket. How much change did she receive when she paid $200 for the fish and prawns?

Ans : _____[3]

10 ABC is an isosceles triangle. D and G are mid-point of AC and CF respectively. DEFG is a square and EG = 10 cm.
Find the area of triangle ABC.



Ans : _____ [3]

11. Alice and Bernard were given a sum of money by their parents. Alice received 35% of the money. After Bernard spent 80% of his money, he had $45.50 left. How much money did Alice receive?

Ans : _____ [3]

12 Harry had 2 containers, A and B of different capacities. Both the containers were filled with water to the brim. He used 480 mℓ of water from container A and it became $\frac{1}{5}$ full. Then he poured $\frac{5}{8}$ of the water from container B into container A. The amount of water in container A increased to 580 mℓ.
How much water was in container B at first?

Ans : _____ [4]

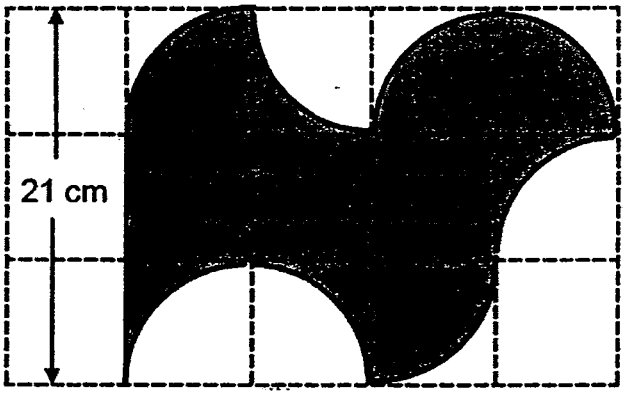
13. At 8.30 am., a bus left Town A for Town B travelling at the speed of 54 km/h. One hour later, a car started from Town B and travelled towards Town A. At 11 a.m., the car covered $\frac{1}{5}$ of the journey while the bus had to travel another 165 km before it reached the mid-point of the two towns. What was the average speed of the car?

Ans : _____ [4]

14. When $\frac{1}{3}$ of a box is filled with flour, its mass is 0.13 kg. When $\frac{3}{4}$ of the box is filled with flour, its mass is 0.23 kg. Find the mass of the box when it is empty.

Ans : _____ [4]

15. In the square grid below, the outline of the shaded figure is formed by 8 identical quarter circles and a straight line.



(a) Find the area of the shaded figure.

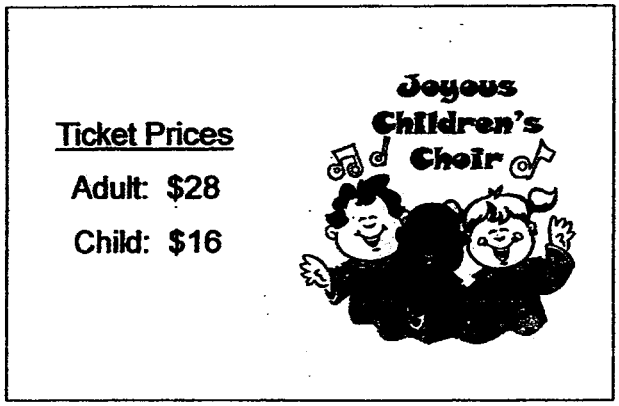
(b) Find the perimeter of the shaded figure.

(Take $\pi = \frac{22}{7}$)

Ans : (a) _____ [3]

(b) _____ [2]

16.



On Saturday, 300 more children than adults attended the performance. On Sunday, the number of children decreased by 40% while the number of adults increased by 20%. The concert hall with a capacity of 2700 seats was only 70% full on Sunday. What was the total amount of money collected from the sale of child tickets on both days?

Ans : _____ [5]

17. Mary had some twenty-cent coins and some fifty-cent coins in a money box. The ratio of the number of twenty-cent coins to the number of fifty-cent coins in the money box was 3 : 4 at first. When 40 fifty-cent coins were taken out and replaced by the same value of twenty-cent coins, the ratio of the number of twenty-cents coins to the number of fifty-cents coins became 4 : 1. What was the total amount of money in the money box at first?

Ans : _____ [5]

18. Aisha and Ismail had $751 and $360 respectively. Aisha saved $45 per week while Ismail saved $68 per week.

(a) How many weeks would it take for both of them to have the same amount of money?

(b) How much money would Aisha have altogether when Ismail saved $115 more than her?

Ans : (a) _____ [2]

Ans : (b) _____ [3]

End of Paper-

☺ Please check your work carefully ☺

Setters : Ho Kai Huat, Jacqueline Seto, Wirda

EXAM PAPER 2017

LEVEL : PRIMARY 6

SCHOOL : RAFFLES GIRLS' PRIMARY SCHOOL

SUBJECT : MATHEMATICS (PAPER 1)

TERM : SA1

SECTION A

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

SECTION B

Q16. 1+3+5+15=24

$24 \div 4 = 6$

Q17. $4 \times 7 - 24 \div 3 + 5$

$= 28 - 24 \div 3 + 5$

$= 28 - 8 + 5$

$= 20 + 5$

$= 25$

Q18. $5U = 5690$

$1U = \frac{5690}{5}$

$= 1138$

$2U + 5U = 70$

$70 = 1138 \times 7 = 7966$

Q19. $\frac{7}{5} - \frac{1}{2}$

$= \frac{14-5}{10}$

$= \frac{9}{10}$

Q20. $\frac{3}{8} = 0.375$

$0.375 + 2 = 2.375$

Q21. $30m = 0.03km$

$5km + 0.03km = 5.03km$

Q22. 1 circle $= \pi \times r \times 2$

$= \frac{22}{7} \times 7 \times 2$

$= 44$

$44 + 28 + 14 = 86$

Q23. Jane = y
Mary = 2y
Lynn = 2y + 5 years old

Q24. 1h ($12) 1h ($10) 1h ($10)
Total = $12 + $10 + $10 = $32
1 friend = $\frac{\$32}{5}$
=$6.40

Q25. 1h 15min 10min
9.15am 8.15am 8.00am 7.50am
Ans : 7.50am

Q26. 3 triangles = $18cm^2$
1 triangles = $18cm^2 \div 3$
$= 6cm^2$
9cm ÷ 3 = 3cm
$6cm^2$ X 2 = $12cm^2$
$12cm^2$ ÷ 3cm = 4cm

Q27. 52kg = 52000g
1 set = 500g + 300g = 800g
No. of set = $\frac{52000}{800}$
= 65
65 X 2 = 130

Q28. $4\frac{3}{8} = \frac{35}{8}$
$\frac{35}{8} \div 7$
$= \frac{35}{8} \times \frac{1}{7}$
$= \frac{5}{8}$

Q29. 11.3 – 3 = 8.3
8.3 X 5 = 41.5
41.5 ÷ 5 = 8.3
8.3 + 10.7 = 19.0
Ans : ÷

Q30. $360^0 - (90^0 + 90^0) = 180^0$
$180^0 - 70^0 = 110^0$

EXAM PAPER 2017

LEVEL	:	PRIMARY 6
SCHOOL	:	RAFFLES GIRLS' PRIMARY SCHOOL
SUBJECT	:	MATHEMATICS (PAPER 2)
TERM	:	SA1

Q1. Recipe for 12 cookies
Needs to make 30 cookies

$$\frac{30}{12} = 2.5$$

Amount of flour needed = 2.5 X 220g
= 550g

Q2. Total given = 8y – 2y = 6y
No. of children = $\frac{6y}{5}$

Q3.

A : B	BB : 5B : Total
3 : 2	4 : 1 : 5
15 : 10	12 : 3 : 15

SB (3U) = 9

$$1U = \frac{9}{3}$$

$$= 3$$

Total (U) = 15U + 10U = 25U
25U = 3 X 25 = 75

Q4. How much more R had travelled = 15m / min X 150 min
= 750m

$$1 - \frac{9}{10} = \frac{1}{10}$$

$\frac{1}{10}$ of Distance = 750
Total Distance = 750 X 10 = 7500m

Q5. When dry = 350g
When wet = 980g
Increase = 980g – 350g = 630g
% increase = $\frac{630}{350}$ X 100% = 180%

Q6. H : K K : A

5 : 7 2 : 3

10 : 14 14 : 21

Different between A and H(v) = 21U – 10U

= 11U

11U = 242

$1U = \frac{241}{11}$

= 22

K(14U) = 22 x 14 = 308 beads

Q7. In the end $\frac{SF}{4} : \frac{G}{5}$

At first (U) = 4U X 2 = 8U

8U + 5U = 13U

13U = 1583 – 218 = 1365

$1U = \frac{1365}{13} = 105$

SF sold (4U) = 4 X 105 = 420 swordtail fish

Q8. VM : BM

4 : 1

4U – 115 = 1P

1U + 65 = 1P + 36

1U + 29 = 1P

4U – 115 = 1U + 29

4U – 1U = 29 + 115

3U = 144

$1U = \frac{144}{3} = 48$

At first (5U) = 48 X 5 = 240

240 + 65 = 305 muffins

Q9. 3kg F = $45

$1kg F = \$\frac{45}{3} = \$15$

1kg P = $15 X 2 = $30

4 kg P = $30 X 4 = $120

Total cost = $45 + $120 = $165

Change = $200 - $165 = $35

Q10. ▲ ABC = 8 small ▲

2 small ▲ = 10 X 5 = 50

8 small ▲ = 50 X 4 = 200cm^2

Q11. A got = 35%

B got = 100% - 35% = 65%

100% - 80% = 20%

20% of B = 45.50

B = 45.50 X 5 = 227.50

65% of total given = 227.50

1% of total given = $\frac{227.50}{65}$

35% of total given = $\frac{227.50}{65}$ X 35 = $122.50

Q12. $1 - \frac{1}{5} = \frac{4}{5}$

$\frac{4}{5}$ of A = 480

$\frac{1}{5}$ of A = $\frac{480}{4}$ = 120

580 – 120 = 460

$\frac{5}{8}$ of B =460

B = $\frac{460\ X\ 8}{5}$ = 736ml

Q13 Distance Bus covered by 11am = 54km/h X $2\frac{1}{2}$ h = 135km

Midpoint = 165km + 135km = 300km

300km X 2 = 600km

$\frac{1}{5}$ X 600km = 120km

Car travelled 120km in = $2\frac{1}{2} - 1h = 1\frac{1}{2}$ h

Speed of car = $\frac{D}{T} = \frac{120km}{1.5h}$ = 80km/h

Q14. $\frac{3}{4} - \frac{1}{3} = \frac{5}{12}$

$\frac{5}{12}$ of box = 0.23kg – 0.13kg = 0.1kg

$\frac{1}{3} = \frac{4}{12}$

$\frac{4}{12}$ of box = $\frac{0.1kg\ X\ 4}{5}$ = 0.08kg

0.13kg – 0.08kg = 0.05kg

Q15. a) Radius = 21 ÷ 3 = 7

$7 \times 7 \times 7 = 343cm^2$

b) Perimeter of 2 circles $= \pi \times r \times 2 \times 2$

$= \frac{22}{7} \times 7 \times 2 \times 2 = 88$

88 + 7 + 7 = 102cm

Q16. People On Sunday = $2700 \times \frac{70}{100} = 1890$

A on Sat = 100×

C on Sat = 100× + 300

A on Sun = $100\times \times \frac{120}{100} = 120\times$

C on Sun = 60× + 180

120× + 60× + 180 = 1890

180× = 1890 − 180 = 1710

$\times = \frac{1710}{180} = 9.5$

(100 X 9.5) + 300 + (60 X 9.5) + 180 = 2000

2000 X 16 = $32000

Q17 Ratio of number at first

20¢	:	50¢
3	:	4

Ratio of value at first

20¢	:	50¢	:	Total
60	:	200	:	260

40 X 50¢ = $20

$20 ÷ 20¢ = 100

Ratio of number later

20¢	:	50¢
4	:	1
8	:	2

Ratio of value later

20¢	:	50¢	:	Total
80	:	50	:	130
160	:	100	:	260

8U – 3U = 5U

5U = 100 coins

$1U = \frac{100}{5} = 20$

3U = 20 X 3 = 60

60 X 20 = 1200

Q17. 4U = 20 X 4 = 80

80 X 50 = 4000

1200 + 4000

= 5200¢ = $52

Q18. a) 751 – 360 = 391 (difference in saving at first)

68 – 45 = 23 (difference in saving per week)

391 ÷ 45 = 17 weeks

b) Aisha saving when they had same = 751 + (17 X 45) = 1516

No. of weeks for Ismail to have 115 more = 115 ÷ 23 = 5

(5 X 45) + 1516 = $1741