



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

Name: _____ ()

Form Class: P6 _____

Banded Math Class: P6 _____

Date: 8 May 2014

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)

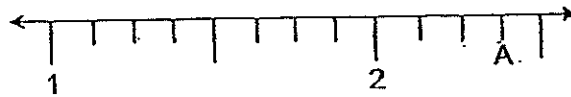
Questions 1 to 10 carry 1 mark each. Question 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade your answer (1, 2, 3 or 4) on the OAS provided. All diagrams are not drawn to scale.

1. What is the missing value in the box?

$$1393 \times 1\,000 = \boxed{} \times 10$$

- (1) 13.93
- (2) 139.3
- (3) 13930
- (4) 139300

2. Study the number line below.



What is the value represented by A?

- (1) $\frac{3}{8}$
- (2) $\frac{3}{4}$
- (3) $2\frac{3}{8}$
- (4) $2\frac{3}{4}$

3. Which of the following is the same as 4010 g?
- (1) 0.401 kg
 - (2) 4.01 kg
 - (3) 40.10 kg
 - (4) 401.0 kg
4. Steven is paid $\$(8 + 3x)$ hourly for his job. He works 8 hours a day.
If $x = 7$, what is his daily salary?
- (1) \$29
 - (2) \$68
 - (3) \$144
 - (4) \$232
5. A box contained red, green and blue balls.
For every 4 red balls sold, 7 green balls were sold.
For every 3 blue balls sold, 5 green balls were sold.
Find the ratio of the number of red balls sold to the number of green balls sold to the number of blue balls sold.
- (1) 20 : 35 : 21
 - (2) 21 : 35 : 20
 - (3) 24 : 21 : 35
 - (4) 20 : 24 : 21
6. Which of the following fractions is the greatest?
- (1) $\frac{4}{3}$
 - (2) $\frac{13}{5}$
 - (3) $\frac{15}{8}$
 - (4) $\frac{18}{9}$

7. Express 0.28 as a fraction.

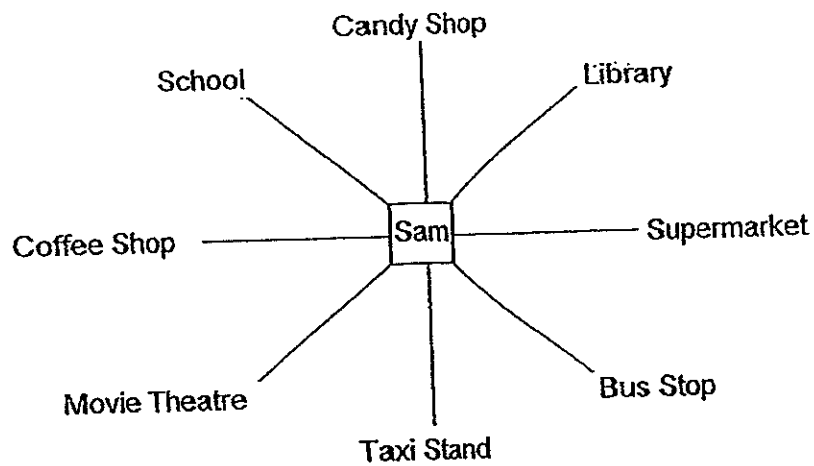
(1) $\frac{7}{250}$

(2) $\frac{7}{25}$

(3) $1\frac{7}{250}$

(4) $1\frac{7}{25}$

8. In the figure below, Sam is standing in the centre and is facing the library. Which place will he be facing when he turns 135° anti-clockwise?



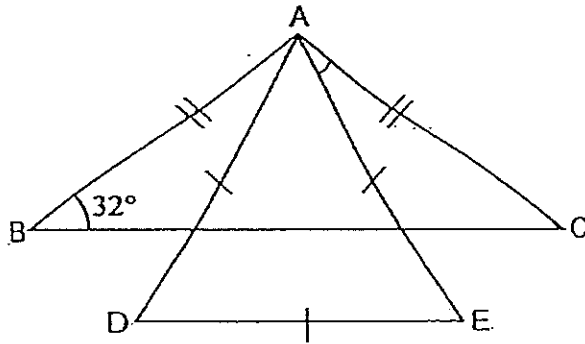
(1) Bus Stop

(2) Taxi Stand

(3) Candy Shop

(4) Coffee Shop

9. In the figure below, ABC is an isosceles triangle and ADE is an equilateral triangle. $\angle ABC$ is 32° and $\angle BAD = \angle CAE$. Find $\angle CAE$.



- (1) 28°
(2) 32°
(3) 56°
(4) 64°
10. Express 10% as a percentage of $\$10$.
- (1) 1%
(2) 10%
(3) 100%
(4) 1000%
11. Joelle has some red and blue pens. Her red pens are in bundles of 8 and her blue pens are in bundles of 9. The difference between the total number of red pens and blue pens is 37. There are 10 bundles of red pens altogether. How many bundles of blue pens are there?

- (1) 13
(2) 43
(3) 109
(4) 117

12. At first, there were 1.6ℓ more water in Tank A than in Tank B. After an equal amount of water was poured out from both tanks, the amount of water left in Tank A was thrice the amount of water left in Tank B. If a total of 2ℓ of water was poured out, find the amount of water in Tank B at first.

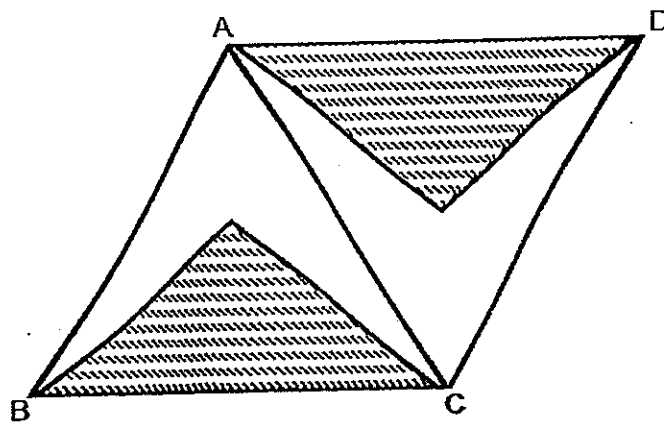
- (1) 0.8ℓ
- (2) 1.8ℓ
- (3) 2.6ℓ
- (4) 2.8ℓ

13. Figure ABCD is made up of 2 identical triangles, ABC and ACD, each with a shaded triangle in it.

The height of the triangle ABC is twice the height of the shaded triangle in it.

The area of each shaded triangle is 14 cm^2 .

Find the unshaded area of figure ABCD.



- (1) 14 cm^2
- (2) 28 cm^2
- (3) 42 cm^2
- (4) 56 cm^2

14. Sally had 340 beads. 70% of them were gold and 50% of the remainder were silver. The rest were purple. How many purple beads did she have?

- (1) 51
- (2) 102
- (3) 170
- (4) 238

15. Some beads are packed into packets of 5 or 7. If the ratio of the number of packets to the number of beads is 5 : 29, what fraction of the packets contain 7 beads?

- (1) $\frac{1}{5}$
- (2) $\frac{2}{5}$
- (3) $\frac{3}{5}$
- (4) $\frac{4}{5}$

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. Arrange the numbers below in descending order.

45 858, 84 858, 48 548, 84 548

Ans: _____, _____, _____, _____

17. What is the value of $9 \times 7 + (10 - 6) \times 3$?

Ans: _____

18. Mrs Fong had $\frac{8}{9}$ m of ribbon. She cut the ribbon into 4 equal pieces without remainder. What was the length of each piece of ribbon?

Give your answer in its simplest form.

Ans: _____ m

19. $2\frac{2}{9} = \frac{2}{3} + \frac{10}{9} + \square$

What is the missing fraction in the box?

Ans: _____

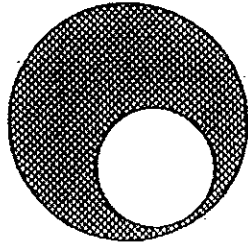
20. Express 0.31 as a percentage.

Ans: _____%

21. A jug contained 3 400 ml of milk. Mrs Lim used 850 ml of milk for baking.
How many millilitres of milk was left in the jug now?

Ans: _____ ml

22. In the figure below, the diameter of the big and small circles are 8 cm and 4 cm respectively. Find the area of the shaded part in terms of π .



Ans: _____ cm^2

23. Jack is r years old now. He is twice as old as his sister. How old will his sister be in 6 years' time? Express your answer in terms of r .

Ans: _____ years old

24. Mike turned on tap A at 3 p.m. and water flowed into an empty tank at a rate of 70 litres per hour. Tap B was turned on at 4 p.m. and water flowed into the same tank at a rate of 50 litres per hour. What was the volume of water in the tank at 5 p.m.?

Ans: _____ l

25. A machine took 5 minutes to produce 1 packet of instant noodles.
How many hours did it take to produce 40 packets of instant noodles?

Ans: _____ h

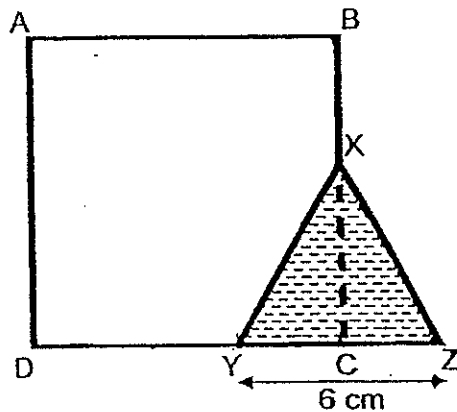


Questions 26 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the space provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. Answers in fractions or ratio must be expressed in the simplest form.

26. The figure below is made up of a square ABCD and equilateral triangle XYZ. The area of the shaded equilateral triangle is 20cm^2 .

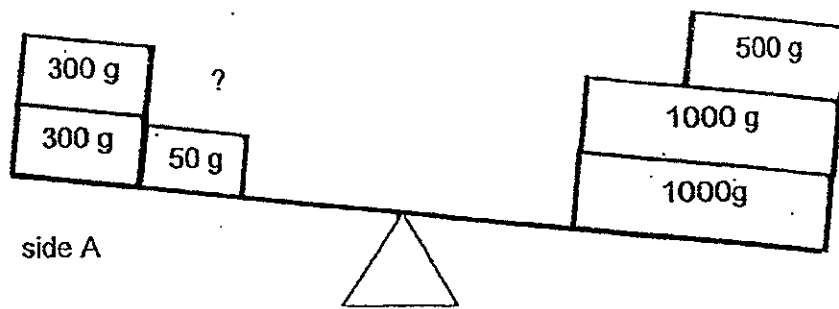
YC is $\frac{1}{3}$ of DC. YZ is 6 cm.

Find the unshaded area in the square ABCD.



Ans: _____ cm^2

27. How many 50-g weights must be added on side A for the scale to balance?



Ans: _____

28. $\frac{1}{4}$ of Aisha's money is equal to $\frac{3}{8}$ of Ben's money.

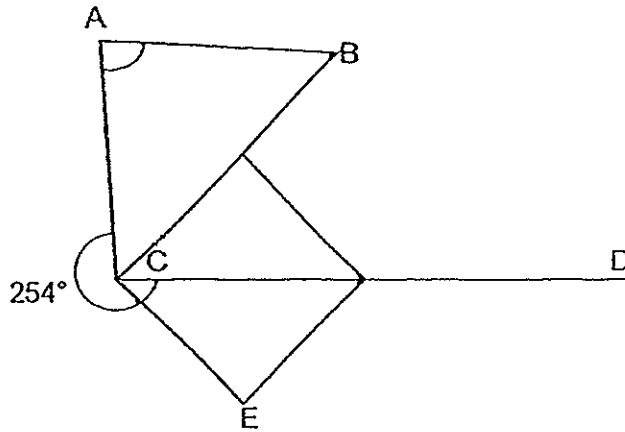
What fraction of Aisha's money must she give to Ben so that both of them have the same amount of money?
Give your answer in its simplest form.

Ans: _____

29. The sum of two numbers is 106.8.
The first number has three decimal places.
The second number is 99 times the first number.
What is the first number?

Ans: _____

30. The figure below is made up of a square and an isosceles triangle. Line CD is a straight line and $\angle ACD$ is 254° . Find $\angle BAC$.



Ans: _____^o

End of Paper-
☺ Please check your work carefully ☺

Settlers: Ms Aubrey Ong
Mr Darren Lau
Ms Lee Suan Khim



**RAFFLES GIRLS' PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 1
MATHEMATICS (PAPER 2)
PRIMARY 6**

Name: _____ ()

Form class: P6 _____

Banded Math Class: P6 _____

Date: 8 May 2014

Duration: 1 h 40 min

| | |
|---|--|
| Your 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. Figures are not drawn to scale.

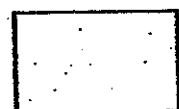
For questions which require units, give your answers in the units stated. (10 marks)

1. A pair of shoes cost \$280 at "Shoes Variety". Mrs Chan bought it during a sale at a discount of 15%. How much did Mrs Chan pay for the pair of shoes in the end?

Ans: _____ [2]

2. Emelia had w boxes of chocolates. There were 30 pieces of chocolates in each box. She ate 7 pieces of chocolates and packed the remaining pieces of chocolates into 8 packets equally. How many pieces of chocolates were there in each packet? Express your answer in terms of w .

Ans: _____ [2]

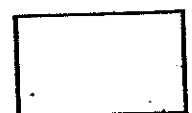


3. John started driving from Singapore to Kuala Lumpur at an average speed of 90 km/h at 9 a.m. and reached Kuala Lumpur at 1 p.m. Find the distance for the whole journey.

Ans: _____ km [2]

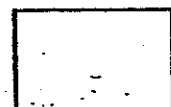
4. Mr Wong bought 580 pens. The ratio of the number of red pens to the number of black pens was 4 : 7. The ratio of the number of black pens to the number of green pens was 2 : 1. How many black pens did Mr Wong buy?

Ans: - _____ [2]



5. 6 workers can paint 48 chairs in 30 minutes.
How many chairs can 1 worker paint in 1 hour?

Ans: _____ [2]



For questions 6 to 18, show your working clearly in the space provided for each question and write your answers in the spaces provided. Figures are not drawn to scale. The number of marks available is shown in the brackets [] at the end of each question or part-question. (50 marks)

6. Sally had some money at first and she spent $\frac{1}{7}$ of her money on a wallet. She spent the rest of the money on 2 chairs and a fan. The 2 chairs cost \$491 more than the wallet. The fan cost \$97 more than the wallet. How much did the fan cost?

Ans: _____ [3]

7. Michelle bought 18 donuts at \$ y each and 16 loaves of bread at \$1.50 each. She gave the cashier \$100.
- (a) Express her change in terms of y .
- (b) If $y = 2$, how much change did she receive?

Ans: (a) _____ [2]

(b) _____ [1]



8. Andy started driving from Town A to Town B at an average speed of 80 km/h at 9 a.m..

Benny started driving from Town B to Town A at an average speed of 100 km/h at 9.30 a.m..

After 30 minutes of driving, Benny covered $\frac{1}{5}$ of his journey.

At what time would Andy and Benny meet each other?

Ans: _____ [3]

9. Amy had some money.

If she bought a table and 5 identical chairs, she would spend all her money.

If she wanted to buy a table and an oven that cost \$254 more than a chair, she would be short of \$38.

How much money would Amy had left if she had bought the table?

Ans: _____ [3]



10. Mr. Lee mixed 5 ℓ of syrup with 23 ℓ of water to make some fruit punch. He then poured all the fruit punch into cups. If each cup contained 200 ml of fruit punch and he sold each cup at \$0.40, how much did he collect after he had sold all the cups of fruit punch?

Ans: _____ [3]

11. Joanne baked some chocolate and strawberry cookies. 60% of the cookies were chocolate. After she baked another 40 chocolate and 40 strawberry cookies, 45% of the cookies were strawberry. Find the total number of cookies she baked at first.

Ans: _____ [3]



12. In a train, the ratio of female passengers to male passengers was 5 : 3. When 16 female passengers alighted the train, the new ratio of female passengers to that of male passengers became 11 : 9.

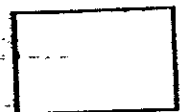
- (a) What was the original number of female passengers in the train?
- (b) How many passengers were there in the train in the end?

Ans: (a) _____ [2]

(b) _____ [2]

13. John rode his bicycle at an average speed of 20 km/h from Town A to Town B at 1p.m..
30 minutes later, Ken started riding his bicycle at an average speed of 40 km/h from Town A to Town B.
How much time did Ken need to catch up with John?

Ans: _____ [3]



14. In 9 days, Nelly used a total 84.6 kg of flour for baking. Each day, she used 1.04 kg less flour than the previous day. How many kilograms of flour did Nelly use on the first day?

Ans: _____ [5]

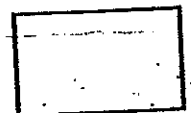
15. At first, Huimin had only ten-dollar notes and Jim had only two-dollar notes.

The number of notes Huimin had was $\frac{2}{3}$ the number of notes Jim had.

After Huimin gave Jim \$3 600, the number of notes Huimin had became $\frac{1}{6}$ the number of notes Jim had.

What was the difference in the amount of money Huimin and Jim had at the end?

Ans: _____ [5]



16. Ken had some big and small packets of flour. The amount of flour in a big packet was 4 times as much as the amount of flour in a small packet.

If he repacked 2 big packets of flour into small packets, he would have 16 small packets of flour altogether.

If he continued to repack the remaining big packets of flour into small packets, he would have 36 small packets of flour altogether.

(a) What was the total number of small packets and big packets of flour Ken had?

(b) The difference between the total amount of flour in big packets and small packets of flour is 10 kg. Find out the amount of flour in a big packet.

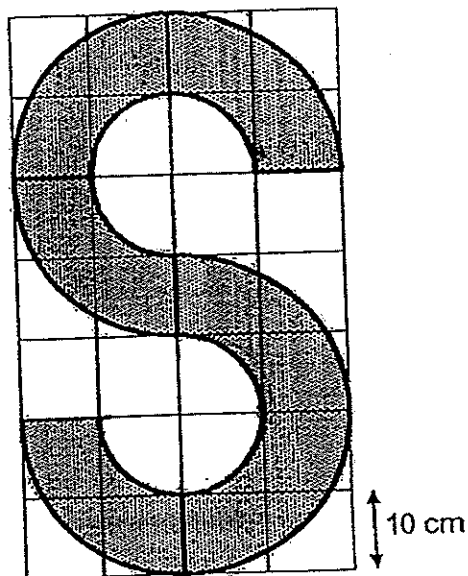
Ans: (a) _____ [3]

(b) _____ [2]



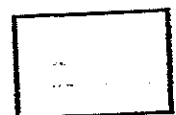
17. In the square grid below, the figure 'S' is made up of semicircles and quadrants. Each square has a side of 10 cm. Take π as 3.14.

- (a) Find the perimeter of the figure 'S'.
(b) Find the total area of the unshaded parts.



Ans: (a) _____ [2]

(b) _____ [3]



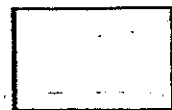
18. Mr Ong had a total of 700 chairs and tables in his shop. After he had sold 70% of the chairs and 46% of the tables, he had 282 tables and chairs left. Find the difference between the number of chairs and tables he had left.

Ans: _____ [5]

-End of Paper-

Please check your work carefully ☺

**Setters: Ms Aubrey Ong
Mr Lau Kar Loong
Ms Lee Suan Khim**





ANSWER SHEET

EXAM PAPER 2014

SCHOOL : RAFFLES GIRL'S

SUBJECT : PRIMARY 6 MATHEMATICS

TERM : SA1

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

16)84585,84548,48548,45858

17)75

18)2/9M

19)4/9

20)31%

21)2550ml

22) 12π cm²

23)(r/2+6)years old

24)190L

25) $3\frac{1}{3}$ h

26)71cm²

27)37

28)1/6

29)1.68

30)58°

Paper 2

1)100% → \$280

10% → \$28

5% → \$14

100 - 15 = 85

85% → \$238

2) $\frac{30W-7}{8}$

8

3)S | _____ | KL

D = 360km (90x4)

S = 90km/h

T = 4h

$$4) R : B \quad B : G$$

$$4 : 7 \times 2 \quad 2 : 1 \times 7$$

$$8 : 14 \quad 14 : 7$$

$$8 + 14 + 7 = 29$$

$$29u \rightarrow 580$$

$$1u \rightarrow 20$$

$$14u \rightarrow 280$$

$$5) 6w \ 48c \ 30min \times 2$$

$$6w \ 96c \ 60min \div 6$$

$$1w \ 16c \ 60min$$

Ans:16

$$6) 2c \square \square + 491$$

$$1w \square$$

$$1F \square + 97$$

$$491 + 97 = 588$$

$$4u \rightarrow 588$$

$$1u \rightarrow 147$$

$$147 + 97 = \$244$$

$$7) 18 \times y = 18y$$

$$16 \times 1.50 = 24$$

$$100 - 24 = 76$$

$$18 \times 2 = 36$$

$$100 - 36 - 24 = 40$$

$$a) \$ (76 - 18y)$$

$$b) \$40$$

$$8) \frac{1}{2} \rightarrow 50$$

$$5/5 \rightarrow 250$$

$$250 - 50 - 80 = 120$$

$$50 + 80 + 50 = 180$$

$$120/180 = 2/3$$

$$2/3h = 40min$$

$$9.30 \text{-----} 10.40a.m.$$

$$9) 4u \rightarrow 216 (254 - 38)$$

$$1u \rightarrow 54 (216 \div 4)$$

$$5u \rightarrow 270 (54 \times 5)$$

$$10) 28000 \div 200 = 140$$

$$140 \times 0.4 = \$56$$

$$11) 45 - 40 = 5$$

$$40 - 36 = 4$$

$$5u \rightarrow 4$$

$$100u \rightarrow 80$$

$$12) 15u - 16 = 11p$$

$$4u \rightarrow 16$$

$$1u \rightarrow 4$$

$$15u \rightarrow 60$$

$$9u \rightarrow 36$$

$$60 + 36 = 96$$

$$96 - 16 = 80$$

a) 60
b) 80

$$13) 20 \times \frac{1}{2} = 10 \text{ (} 20\text{km/h} \times 0.5\text{h} = 10\text{km)}$$

$$40 - 20 = 20$$

$$10 \div 20 = \frac{1}{2} \text{ h}$$

$$= 30 \text{ min}$$

$$14) 36 \times 1.04 = 37.44$$

$$84.6 + 37.44 = 122.04$$

$$122.04 \div 9 = 13.56\text{kg}$$

15)

| | Huimin | : | Jim | Total |
|--------|--------------|---|--------------|--------------|
| Before | 2×7 | : | 3×7 | 5×7 |
| | 14 | : | 21 | 35 |
| After | 1×5 | : | 6×5 | 7×5 |
| | 5 | : | 30 | 35 |

$$\$3\,600 \div \$10 = 360$$

$$14u - 5u = 9u$$

$$9u \rightarrow 360 \text{ notes}$$

$$1u \rightarrow 40 \text{ notes}$$

$$5u \rightarrow 5 \times 40 \times \$10 = \$2\,000 \text{ (Huimin's money)}$$

$$21u \rightarrow 21 \times 40 \times \$2 = \$1\,680$$

$$\$1\,680 + \$3\,600 = \$5\,280$$

$$\$5\,280 - \$2\,000 = \$3\,280$$

16)a) $2 \times 4 = 8$

Small packets $\rightarrow 16 - 8 = 8$

Big packets $\rightarrow 36 - 16 = 20$

$(20 \div 4) + 2 = 7$

Total packets $\rightarrow 8 + 7 = 15$

b) $(7 \times 4) - 8 = 20$

1 unit $\rightarrow 10 \text{ kg} \div 20 = 0.5 \text{ kg}$

Big packet $\rightarrow 0.5 \text{ kg} \times 4 = 2 \text{ kg}$

17)a) 3 big semicircles $\rightarrow 1.5 \times 3.14 \times 40 \text{ cm} = 188.4 \text{ cm}$

3 small semicircles $\rightarrow 1.5 \times 3.14 \times 20 \text{ cm} = 94.2 \text{ cm}$

$188.4 \text{ cm} + 94.2 \text{ cm} + 10 \text{ cm} + 10 \text{ cm} = 302.6 \text{ cm}$

b) total area of sq $\rightarrow 28 \times 10 \text{ cm} \times 10 \text{ cm} = 2800 \text{ cm}^2$

Big semicircle $\rightarrow 0.5 \times 3.14 \times 20 \text{ cm} \times 20 \text{ cm} = 628 \text{ cm}^2$

Small semicircle $\rightarrow 0.5 \times 3.14 \times 10 \text{ cm} \times 10 \text{ cm} = 157 \text{ cm}^2$

$628 \text{ cm}^2 - 157 \text{ cm}^2 = 471 \text{ cm}^2$

$471 \text{ cm}^2 \times 3 = 1413 \text{ cm}^2$

$2800 \text{ cm}^2 - 1413 \text{ cm}^2 = 1387 \text{ cm}^2$

18) $80\% T = 240$

$1\% T = 3$

$4\% T = 162$

$282 - 162 = 120 \text{ } \textcircled{C}$

$162 - 120 = 42$