PRIMARY 6 MID-YEAR EXAMINATION 2013

Name : _____ ( ) Date: 17 May 2013

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) In 15.379, the digit 7 is in the _____ place.

   (1) thousandths
   (2) hundredths
   (3) tenths
   (4) tens

2) What is the value of the digit 3 in 6 130 058?

   (1) 30
   (2) 300
   (3) 3
   (4) 30 000

3) How many ninths are there in $3\frac{1}{3}$?

   (1) 7
   (2) 10
   (3) 21
   (4) 30

4) What percentage of $10 is 20¢?

   (1) 20%
   (2) 2%
   (3) 200%
   (4) 500%

5) A is 5 times of B. B is thrice of C. What is the ratio of C to A?

   (1) 1 : 15
   (2) 15 : 1
   (3) 1 : 5
   (4) 5 : 1

1

6) Express 0.6% as a fraction in its simplest form.

    (1) $\dfrac{3}{5}$

    (2) $\dfrac{1}{6}$

    (3) $\dfrac{3}{50}$

    (4) $\dfrac{3}{500}$

7) Express $2\dfrac{1}{6}$ hours in minutes.

    (1) 106 min
    (2) 110 min
    (3) 126 min
    (4) 130 min

8) The sum of $\dfrac{1}{4}$ and $\dfrac{1}{5}$ is _____.

    (1) 0.45
    (2) 0.25
    (3) 0.20
    (4) 0.09

9) At 10 a.m., Ming Le left Town A and cycled towards Town B at 15 km/h.
    He reached Town B at 1 p.m. Find the distance between Town A and Town B.

    (1) 15 km
    (2) 30 km
    (3) 45 km
    (4) 60 km

10) The number of people who went to a book fair was 60 000 when rounded off
    to the nearest hundred. Which of the following is the best estimate of the
    number of people?

    (1) 60 055
    (2) 60 051
    (3) 59 951
    (4) 59 949

2

11) The diameter of a circle is 14 cm. Find its circumference. (Take $\pi = \dfrac{22}{7}$)

    (1)   44 cm
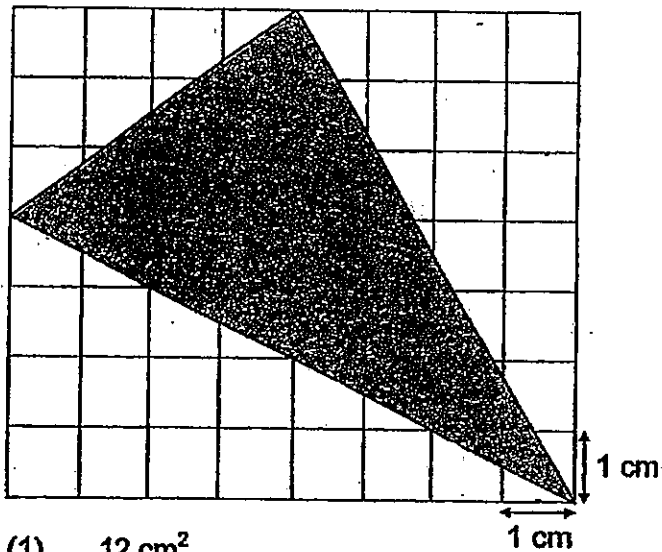   (2)   88 cm
    (3)   154 cm
    (4)   616 cm

12) The total surface area of a cube is 96 cm². Find its volume.

    (1)   256 cm³
    (2)   64 cm³
    (3)   16 cm³
    (4)   4 cm³

13) Ramad had $200. He spent half of it on a gift and 15% of the remainder to buy a book. How much did Ramad have in the end?

    (1) $70
    (2) $85
    (3) $115
    (4) $130

14) Find the area of the shaded triangle below.

1 cm

1 cm

    (1)   12 cm²
    (2)   16 cm²
    (3)   20 cm²
    (4)   28 cm²

3

15) Mr Gopal uses 12 seconds to cut a log cake into 4 equal parts. How long will he take if he cuts the cake into 8 equal parts?

(1) 21 s
(2) 24 s
(3) 28 s
(4) 32 s

- End of Booklet A -

Paper 1 comprises 2 booklets, A and B.

MATHEMATICS

PAPER 1

(BOOKLET B)

20
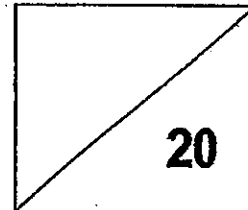
INSTRUCTIONS TO CANDIDATE

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)

16) Arrange the following numbers in ascending order.

1.019   10.109   10.19   10.1
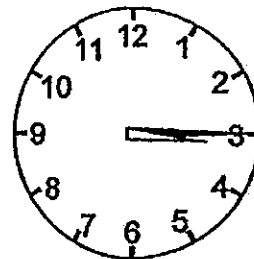
Ans: _____

17) 12 : 18 = _____ : 30

Ans: _____

18)
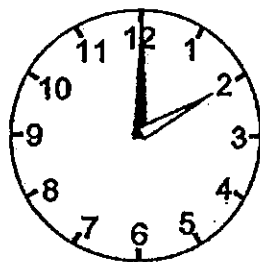
Start	End

The above shows the time Ben spent doing his homework.
How many right angles did the minute hand of the clock travel?

Ans: _____

5

19) Express 5.04 as a mixed number in its simplest form.

Ans:_____

20) What is the quotient when 8018 is divided by 9?

Ans:_____

21) Dahlia ran 2 times around the school field at an average speed of 200 m/min. How long did she take if each round was 0.4 km?
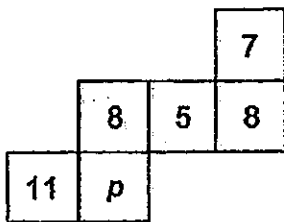
Ans:_____min

22) $\frac{1}{2}$ of a number is 6. What is $\frac{5}{6}$ of the number?

Ans:_____

6

23) Shawn is the 20th pupil from the top and bottom of the class list. How many pupils are there in his class?

Ans:_____

24) The figure below shows the net of a cube with 6 different numbers printed on each of its faces. The sum of the numbers on opposite faces is 16. Find the value of p.

		7
8	5	8

11	p

Ans:_____

25) $\frac{4}{5}$ of Mr Lee's mass is equal to $\frac{7}{8}$ of Mr Tan's mass. What is the ratio of Mr Lee's mass to Mr Tan's mass?

Ans:_____

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)

26) Find the sum of the following algebraic expressions when $n = 8$.

$n + 2$, $2n + 4$, $3n + 6$

Ans:_____

27) The diagrams below are not drawn to scale. Both the rectangle and square have the same area. The length of one side of the square is 12 cm. What is the breadth of the rectangle?

18 cm

12 cm
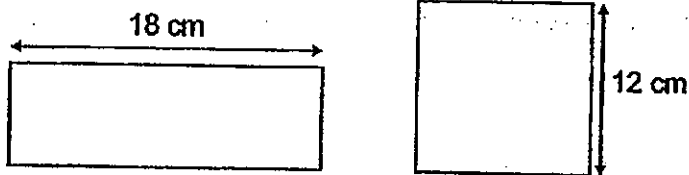
Ans:_____ cm

28) The ratio of Ali's age to Lily's age is 10 : 9. Last year, their average age was 18 years old. How old is Lily now?

Ans:_____years old

29) The figure below is not drawn to scale.
Find the sum of $\angle u$, $\angle v$, $\angle w$, $\angle x$, $\angle y$ and $\angle z$.
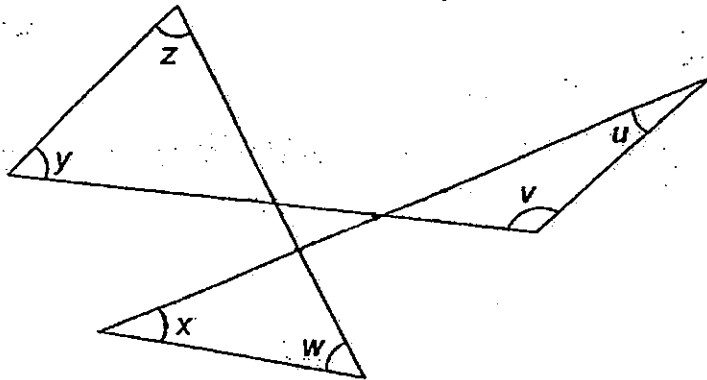
Ans:_____°

30) Study the pattern. What is the missing number?

$$4 \times 4 - 3 \times 3 = 7$$

$$21 \times 21 - 20 \times 20 = 41$$

$$43 \times 43 - 42 \times 42 = 85$$

$$105 \times 105 - 104 \times 104 = \mathbf{?}$$

Ans:_____

- END OF PAPER 1 -

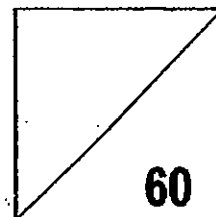## PRIMARY 6 MID-YEAR EXAMINATION 2013

Name : _____ (   )   Date: 17 May 2013

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)

1)   AB and BC are sides of a parallelogram.
      Complete the parallelogram, ABCD.

1 cm

1 cm
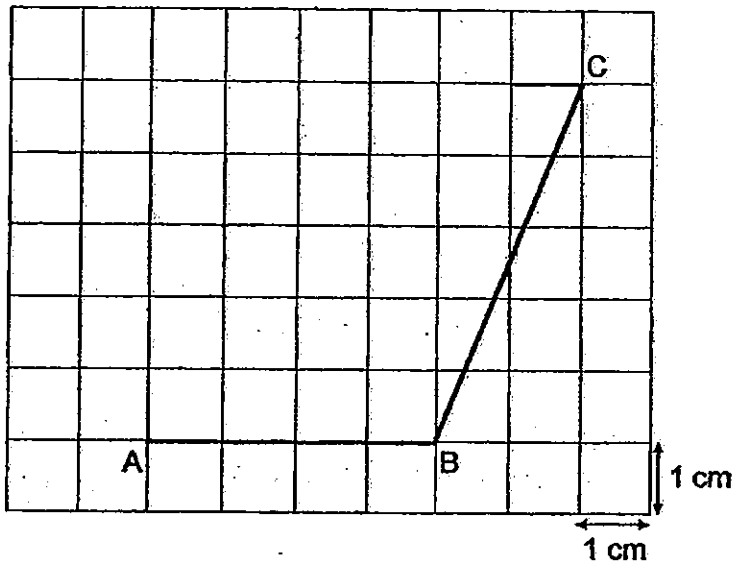
2)   David and Peter shared a sum of money. If David's share of money increased from $6789 to $6924, Peter's share of money decreased by 15%. Find the amount of money Peter received at first.

Ans: $ _____

1

3) In the diagram (not drawn to scale) below, a rectangular piece of paper is folded to form the shape shown below. Find the area of the rectangular piece of paper before it was folded.
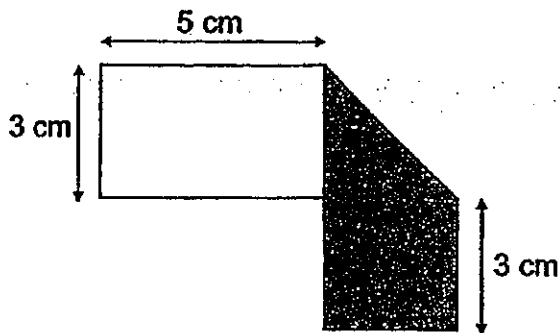
Ans: _____ cm²

4) There are some apples, oranges and pears in a box. $\frac{2}{3}$ of the fruits are apples. The ratio of the number of oranges to the number of pears is 2 : 1. If there are 8 more apples than oranges, find the number of pears in the box.

Ans: _____

5) A pencil cost 50¢. Yiling bought *b* pencils and gave the cashier a five-dollar note. How much change did she receive?

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)   In the figure below, not drawn to scale, DFH is a right-angled triangle. Find ∠EFG.
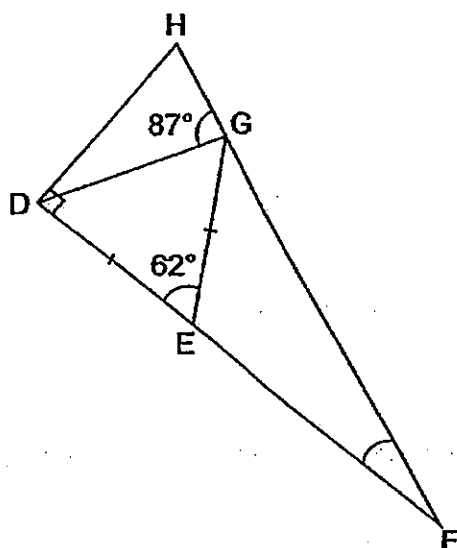
Ans:_____ [3m]

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7)   On Day 1, John read $\frac{2}{5}$ of a book. The next day, he read $\frac{7}{9}$ of the remaining pages. On Day 3, he finished reading the last 70 pages. How many pages were there in the book?

Ans:_____ [3m]

4

8) The figure below, not drawn to scale, comprises of 1 right-angled triangle and 6 identical squares. The total area of the squares is 150 cm². Find the area of the triangle.
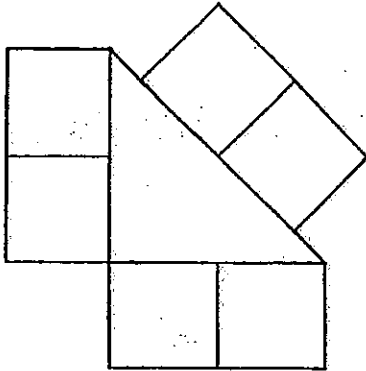
Ans:_____ [3m]

9) $\frac{3}{5}$ of the children in Group A are girls. $\frac{3}{4}$ of the children in Group B are boys.

There are 21 more girls in Group A than in Group B and an equal number of boys in both groups. How many children are there altogether?

Ans:_____ [3m]

10) The table below shows part of Devi's results of her class tests.

Subject	Marks Obtained
English	
Mathematics	
Chinese	90
Science	95

The maximum mark for each test is 100. Devi obtained an average of 93.25 marks for her tests. If she scored 10 less marks for her English test than Mathematics test, find her Mathematics mark.

Ans:_____[3m]

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11) Faizal took part in a 42-km triathlon. He completed the race by swimming 1 km, cycling for $1\frac{1}{2}$ hours and running 5 km. Find Faizal's cycling speed.

Ans:_____[3m]

6

12) The figure below, not drawn to scale, comprises a semi-circle and 2 squares. What is the area of the shaded region? Leave your answer in terms of π.

4 cm
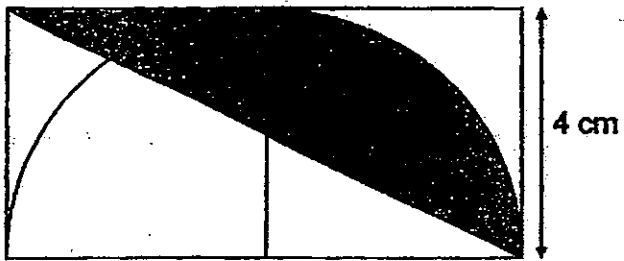
Ans:_____[4m]

13) Mr Koh went to 3 shops with some money. At each shop, he spent $10 more than half of what he had when he entered. He did not have any money left in the end. How much did Mr Koh have before he entered the first shop?

Ans: _____ [4m]

14)

A : (B + C) = 1 : 2

C : (B + D) = 1 : 3

A : D = 2 : 3

Based on the above ratios, find the ratio of A : B : C : D.

Ans:_____[4m]

15) In the diagram below, not drawn to scale, PQRS is a rectangular piece of cardboard. 4 shaded squares are cut off and the remaining piece is folded along the dotted line to make an open box with rectangular base ABCD.
(a) What is the length of AB?
(b) What is the volume of the open box?
(c) Find the maximum number of 2-cm cubes that can be put into the box.
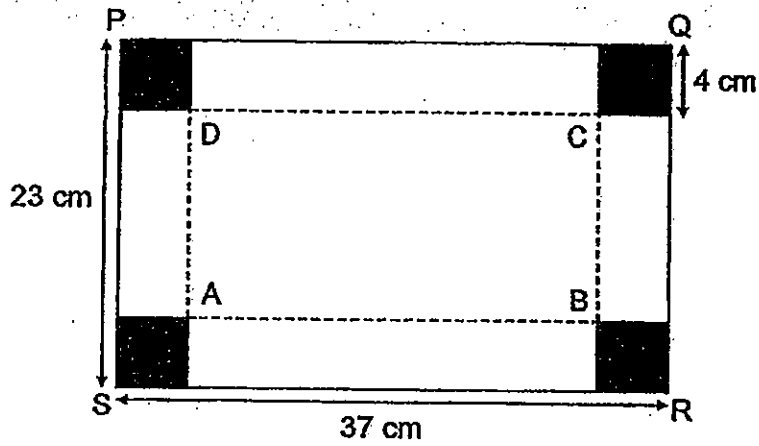
Ans: (a)_____ [1m]

(b)_____ [2m]

(c)_____ [2m]

16) Balloons were used to decorate 8 big rooms and 3 small rooms. All big rooms had the same number of balloons and each small room was decorated with an equal number of balloons. $\frac{3}{17}$ of the balloons were used to decorate the small rooms. If each big room had 15 more balloons than each small room, find the total number of balloons used.

Ans: _____ [5m]

17) May spent a total of $69 on some rulers, pens and erasers. 25% of them were rulers and cost 90¢ each. The number of pens was 6 more than half the total number of items and the remaining were erasers. If a pen cost $2.20 and an eraser cost 70¢, find the total number of pens May bought.

Ans:_____[5m]

18) At first, 25% of Charles' money was the same as $\frac{1}{3}$ of June's money. Then, June's father gave her $80 while Charles spent $150.

In the end, June had $2\frac{1}{2}$ times as much money as Charles.

(a) How much money did Charles have at first?
(b) How much money did June have in the end?

Ans: (a)_____ [2m]

(b)_____ [3m]

- END OF PAPER 2 -
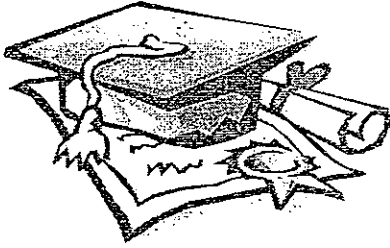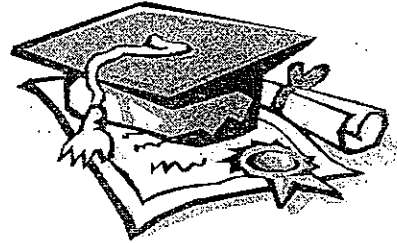
EXAM PAPER 2013

SCHOOL : TAO NAN PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATHEMATICS
TERM : SA1

Booklet A

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16
2	4	4	2	1	4	4	1	3	3	1	2	2	3	3	

16. 1.019 , 10.1, 10.109, 10.19
17. 20
18. 5
19.

$5\frac{1}{25}$

20. 890
21. 4min
22. 10
23. 39
24. 9
25. 35: 32
26. 60
27. 8cm
28. 18
29. 360
30. 209

1
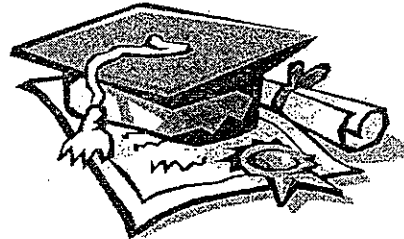
Paper 2

1.

2. 6924-6789 = 135
15% --- 135
5% --- 45
100% --- 900

3. 5+3+3=11
11x3=33

4. 2x3 = 6
6u-2u = 4u
4u --- 8
1u --- 2
5. 5 − 0.5b

6. 180-62=118
118÷2=59
90-59=31
31+87=118
180-118=62
62+90=152
180-152=28

7. 70÷2=35
35x9=315
315÷3=105
105x5=525

8. 150÷6=25
$\sqrt{25}=5$
5x2=10
10x10÷2=50

9. 3u—1p +21
2u − 3p
1u − 1.5p
3u − 4.5p
4.5p − 1p = 3.5p
3.5p ---21

2
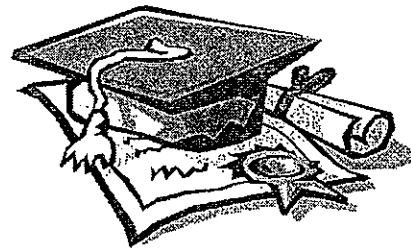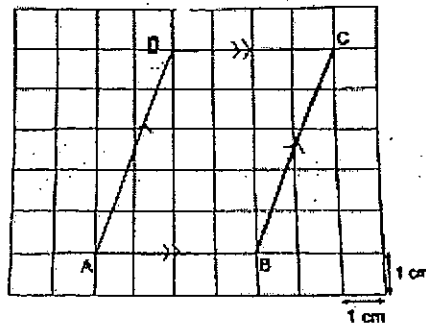
1p—6
4p---24
6+21=27
27÷3=9
9x5=45
45+24=69

10. 93.25x4=373
90+95=185
373-185=188
188-10=178
178÷2=89
89+10=99

11. 5+1=6
42-6=36
36km – 1hr 30mins
12km – 30mins
24km – 1hr

12. 4x4xpie = 16pie
4x8 = 32
16pie ÷4 = 4pie
32÷2 = 16
4x4 = 16
16-4pie = A
16-(16-4pie) = 4pie

13. 20+10=30
30 = half of money at 2rd stall
60 = amount of money at 2nd stall
$60+10=70
$70 = half of 1st stall
140 = 1st stall
14. 21u – 12u = 9u
9u -- B
16-9u = 7u
7u – C
A:B:C:D
8:9:7:12
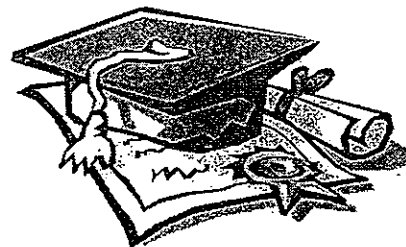
15. a. 4x2=8
37-8=29
b. 23-8=15
29x15x4=1740
c. 29÷2=14R1
15÷2=7R1
14x7x2=196

16. 17-3=14
14/17 ÷8 = 7/68
1 big room --- 7/68 of balloons
1/17 = 4/68
7-4=3
15 balloons – 3/68 of balloons
1/68 of ballons --- 5 ballons
68x5 = 340

17. 2.20x6 = 13.20
69-13.20 = 55.80
0.7x6=4.2
55.80+4.2 = 60
0.9+2.2+2.2+0.7=6
60÷6=10
10x2=20
20+6=26

18. a. 4x2.5=10
150x2.5=375
10u – 375 = 3u +80
7u – 455
1u – 65
4u – 260
b. 3u – 195
195+80=275

4