NAN HUA PRIMARY SCHOOL
CONTINUAL ASSESSMENT 1 – 2015
PRIMARY 6

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 : 6_____

Date : **26 February 2015**   Parent's Signature :_____

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. $6 \div \dfrac{1}{3} = $ _____.

    (1) $\dfrac{1}{18}$

    (2)   2

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

    (4)   18

2.   Express $\dfrac{6}{8}$ as a percentage.

    (1)   20%

    (2)   25%

    (3)   50%

    (4)   75%

3. $\frac{5}{6} \div \frac{3}{4} =$ _____.

(1) $\frac{5}{6} \times \frac{3}{4}$

(2) $\frac{5}{6} \times \frac{4}{3}$

(3) $\frac{6}{5} \times \frac{3}{4}$

(4) $\frac{6}{5} \times \frac{4}{3}$

4. The mass of block A is $\frac{4}{3}$ of the mass of block B. What is the ratio of the mass of block B to the total masses of block A and block B?

(1) 3 : 4

(2) 4 : 3

(3) 3 : 7

(4) 7 : 3

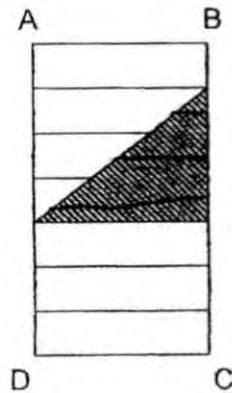5. There are 10 boys and 40 girls in the library.
What fraction of the children are girls?

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

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

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

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

2

6. Rectangle ABCD is made up of 7 identical small rectangles.
   What fraction of the rectangle ABCD is shaded?

    (1) $\dfrac{3}{7}$

    (2) $\dfrac{4}{7}$

    (3) $\dfrac{3}{14}$

    (4) $\dfrac{11}{14}$

7. Kit and Daniel shared 90 sweets in the ratio 2 : 3 respectively
    How many **more** sweets did Daniel have than Kit?

    (1) 18

    (2) 36

    (3) 54

    (4) 60

8. The length of square X is 4 times the length of square Y. What is the ratio of the area of square X to the area of square Y?
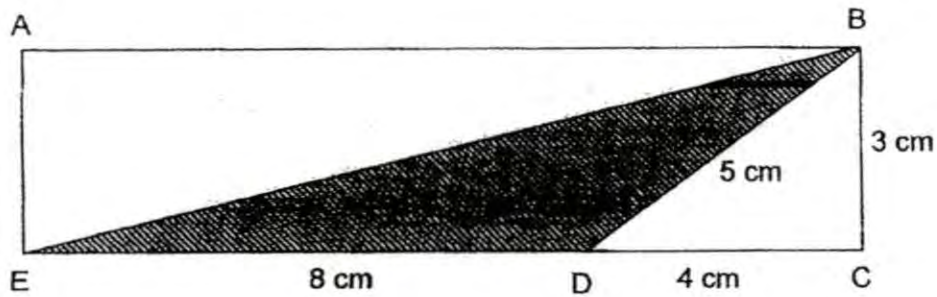
   (1)   1 : 4
   (2)   4 : 1
   (3)   1 : 16
   (4)   16 : 1

9. The figure below is not drawn to scale. If $\angle a = \angle b$, find $\angle a$.

   135°   125°
      a   b

   (1)   45°
   (2)   50°
   (3)   55°
   (4)   100°

4
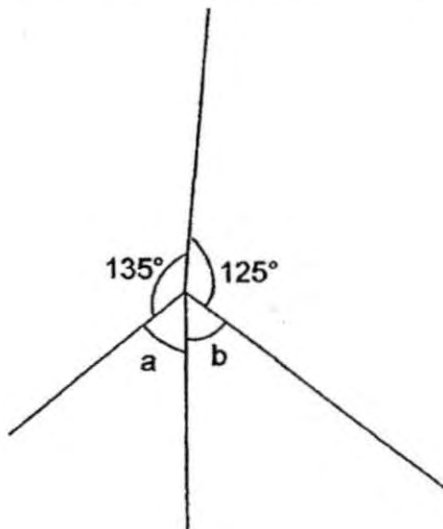
10. The figure below shows a rectangle ABCE. ED = 8 cm, DC = 4 cm, BD = 5 cm and BC = 3 cm. What is the area of the shaded triangle BDE? The figure below is not drawn to scale.

A _____ B

3 cm

5 cm

E _____ 8 cm _____ D ___ 4 cm ___ C

(1) 40 cm²

(2) 24 cm²

(3) 20 cm²

(4) 12 cm²

11. Given that 30 : 45 = 20 : ☐ , what is the missing number in the box?

(1)   10

(2)   15

(3)   25

(4)   30

12. The ratio of the number of apples to the number of mangoes to the number of oranges is 7 : 6 : 4. If there are 828 more apples than oranges, how many mangoes are there?

   (1)   1 656

   (2)   2 484

   (3)   3 312

   (4)   4 692

13. Aaron shared a sum of money equally with 4 friends, Bala, Carapa, Devi and Esther. After receiving his share, Carapa spent $49.90 and had $23.60 left. Find the sum of money.

   (1) $94.40

   (2) $118

   (3) $294

   (4) $367.50

14. Tom and Jerry shared a box of marbles. When Jerry gave some marbles to Tom, Tom's share increased from 120 to 360 marbles. As a result, the number of Jerry's marbles decreased by 20%. How many marbles did Jerry have at first?

   (1)   1 200

   (2)   1 440

   (3)   1 560

   (4)   1 800

15. Each side of a square is increased by 20%.
    What is the percentage increase in its area?

    (1)   20%

    (2)   40%

    (3)   44%

    (4)   80%

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]

16. If A is twice of B and B is twice of C, what is the ratio of C to A?

Ans: _____

17. How many quarters are there in 5 wholes?

Ans: _____

18. If 30% of a number is 60, find the number.

Ans: _____

19. Aza and Bala had an equal number of stickers at first. Bala gave $\frac{2}{5}$ of his stickers to Aza. What was the ratio of Aza's stickers to Bala's stickers in the end?

Ans: _____

8

20. Dora had some cloth. She cut it into 45 equal pieces, each measuring $\frac{4}{5}$ m and had $\frac{3}{5}$ m as leftover . What was the length of the cloth at first? (Give your answer as a mixed number in the simplest form.)

Ans: _____ m

21. Sophie flipped to the centre of a storybook and added the two page numbers to get 127. What are the two page numbers?

Ans: _____ and _____

22. The number of girls to the number of boys at the party is 2 : 3. If there are 75 boys, how many children are there at the party?

Ans: _____

23. At a concert, the ratio of the number of adults to the number of children was 5 : 8. The ratio of the number of men to the number of women was 3 : 2. What was the ratio of the number of men to the number of children?

Ans: _____

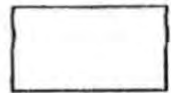24. For every $60 spent at a supermarket, customers get 2 bonus points. Peter needs 16 bonus points to redeem a frying pan. What is the least amount he must spend to get the frying pan?

Ans: $_____

25. In the figure below, complete the symmetric figure by **shading** 2 more squares, with the dotted line as a line of symmetry.

Line of symmetry

11
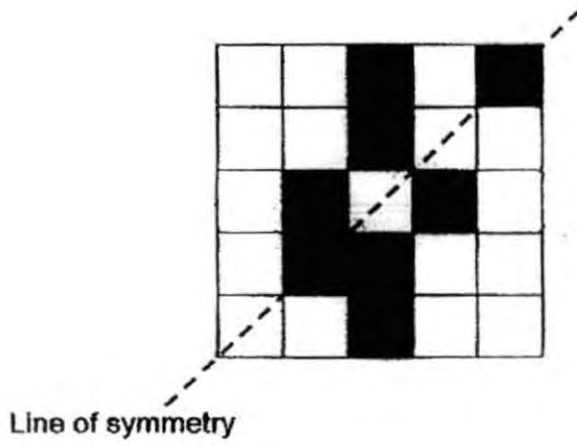
Questions 26 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For each questions which require units, give your answers in the units stated.   [10 marks]

26.   A container had $\frac{5}{8}$ ℓ of water. $\frac{2}{5}$ of the water was poured equally into 5

cups. How much water was there in each cup?

(Give your answer as a fraction in the simplest form.)

Ans: _____ ℓ

27.   Look at the number line below.

$\frac{2}{7}$ M $\frac{2}{5}$
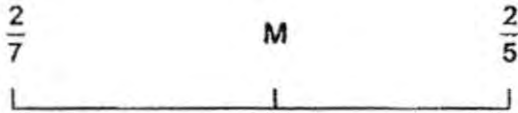
M is exactly half of $\frac{2}{7}$ and $\frac{2}{5}$.

What is the value of M?
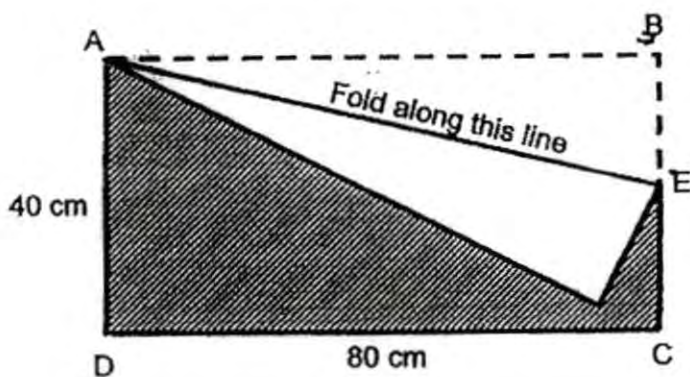(Give your answer as a fraction in the simplest form.)

Ans : _____

12

28. A wheel takes $\frac{1}{5}$ min to make a complete revolution. How many revolutions will it make in $\frac{1}{2}$ h?

Ans : _____

29. The figure ABCD below shows a rectangular piece of paper.
The paper is folded along the line AE where BE = EC.
Find the area of the shaded part.
The figure is not drawn to scale.

Ans : _____ cm²

13

30. In the figure below not drawn to scale, $\frac{3}{5}$ of Square WXYZ and $\frac{8}{9}$ of Square PQRS are shaded. Find the ratio of the shaded area of Square WXYZ to the shaded area of Square PQRS.
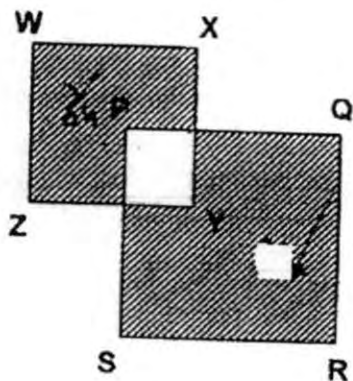
Ans: _____

14

NAN HUA PRIMARY SCHOOL
CONTINUAL ASSESSMENT 1 – 2015
PRIMARY 6

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 : 6__ _____

Date : **26 February 2015**   Parent's Signature :_____

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. Give your answers in the units stated.

1. Belle paid $749 for a handbag below inclusive of 7% GST.

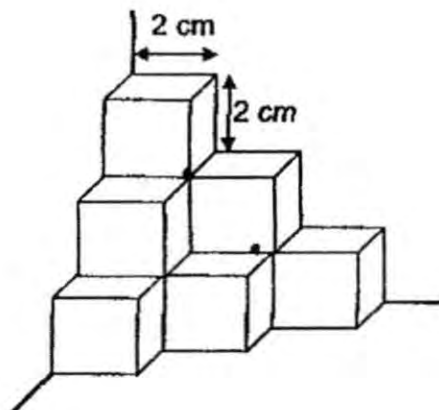   What was the price of the handbag before GST?

   Handbag for Sale!

   Price before GST:?

   Ans: $ _____

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

   2 cm

   2 cm

   Ans: _____ cm³

1

3. $\frac{17}{24}$ m of ribbon is cut into as many shorter pieces. Each of the shorter pieces must measure $\frac{1}{8}$ m.

What is the length of the remaining piece of the ribbon?
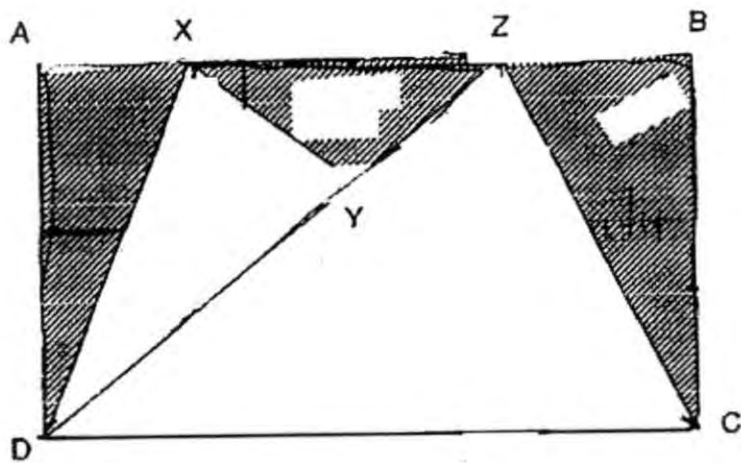
(Give your answer as a fraction in the simplest form.)

Ans : _____ m

4. Daisy is 28 years younger than her father. Her father's age will be 3 times her age in 4 years' time. How old is her father now?
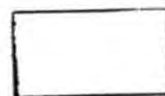
Ans: _____ years old

2

5. The area of the rectangle ABCD below is 200 cm². Given that the area of triangle XYD is 40 cm², what percentage of the figure ABCD is shaded?

Ans : _____%

3

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

6. Joe, Alex and Sean shared some stamps in the ratio 3 : 6 : 5. Sean kept $\frac{1}{5}$ of his stamps for himself and gave the rest of his stamps to Joe and Alex in the ratio 3 : 5. As a result, Alex had 96 stamps more than Joe. How many stamps did Joe have in the end?

Ans: _____ [3]

7. Mickey had a number of books for sale. He sold a total of 418 books on Saturday and Sunday. On Monday, he sold $\frac{1}{4}$ of the remainder. He was left with 18 % of the books he had at first. How many books did he have at first?

Ans: _____ [3]

4

8. Mdm Siti has some cupcakes. She wants to give them to her pupils. If she gives 3 cupcakes to each of her pupils, she will have 12 cupcakes left. If she gives 5 cupcakes to each of her pupils, she will need 18 more cupcakes. How many pupils are there?
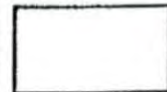
Ans: _____ [3]

9. Melody paid $180 for 8 similar bags and 6 similar T-shirts. A bag cost 3 times as much as a T-shirt. Find the price of 2 such bags and 2 such T-shirts.

Ans: _____ [3]

6

10. Donald bought 20 stamps. Some were 50-cent stamps and the rest were 40-cent stamps. The total cost of all the 50-cent stamps and 40-cent stamps is $9.30. How many 50-cent stamps did he buy?
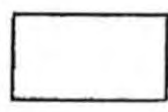
Ans: _____ [3]

7

11. A cone is placed at every $\frac{2}{5}$ km of a road which measures 10 km.
A cone is also placed at the start of the road.

(a) How many cones are there altogether on the road?

(b) Alice decides to walk from the second cone to the fifth cone.
What is the total distance that she has covered?

Ans: (a)_____ [1]

(b)_____ [2]

12. Anna does not have enough savings now to buy a sweater. If Anna Increases her savings by 20%, she would still need another $25. If Anna increases her savings by 45%, she would have $30 more than she needs. How much **more** money does she need to buy the sweater?

Ans: _____ [4]

9

13. Hannah and Noah had $920 altogether. Hannah gave 25% of her money to her mother and Noah donated 60% of his money to charity. Then they had an equal amount of money left.
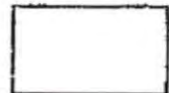
(a) How much money had Noah at first?

(b) How much money did Hannah give to her mother?

Ans: (a) _____ [2]

(b) _____ [2]

10

14. At the school charity fair, some pupils prepared some stationery as prizes for their games stall. Each eraser cost $2, which was $\frac{1}{2}$ of the cost of each notebook. The ratio of the number of the erasers to the number of notebooks was 5 : 3. A total of $1 980 was collected after the charity fair. How many more erasers than notebooks are there?
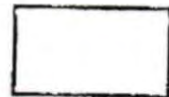
Ans: _____ [4]

11

15. Alvin, Theodore and Simon shared a tin of cookies. Alvin took $\frac{2}{3}$ of the tin of cookies and 5 cookies. Theodore took $\frac{2}{3}$ of the remaining tin of cookies and 5 cookies. Simon received only 2 cookies. How many cookies did Alvin have?

Ans:_____,[5]

12

16. The usual price of a television set is 25% that of a computer. During a sale, Simba bought one television set and one computer at a discount of 30% on each item. He paid a total of $2 590 for them. How much did he save on the computer?

Ans: _____ [5]

13

17. Charlie had some red and blue marbles in a box. The sum of $\frac{1}{4}$ of the red marbles and $\frac{2}{5}$ of the blue marbles in the box is 64. The sum of $\frac{3}{4}$ of the red marbles and $\frac{3}{5}$ of the blue marbles in the box is 120.

(a) How many marbles are there in the box altogether?

(b) How many blue marbles are there in the box?

Ans: (a) _____ [2]

(b) _____ [3]

14

18. Adam and Lynn had some pencils in a box in the ratio of 9 : 4. Adam sold 12 pencils and Lynn bought another 18 pencils. Then, Adam had $\frac{1}{2}$ as many pencils as Lynn. How many pencils were there in the box at first?

Ans: _____ [5]

End-of-Paper

15

NAN HUA PRIMARY SCHOOL
CA 1 2015
PRIMARY 6 MATHEMATICS

Paper 1

1) 4   2) 4   3) 2   4) 3   5) 4   6) 3   7) 1   8) 4
9) 2   10) 4   11) 4   12) 1   13) 4   14) 1   15) 3

16) A   B : C
    2   1
      2 : 1
    ....
    4 : 2 : 1
   Ans . 1 : 4

17) 20

18) 30% – 60
    100% – 100/30 x 60 = 200

19) 7 : 3

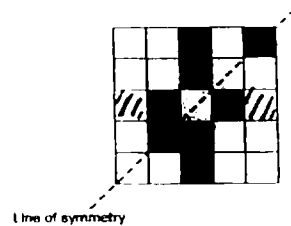20) 36/3/5 m

21) 127-1 = 126
    126÷2 = 63
    63+1 = 64
    Ans : 63 & 64

22) 75÷3x5 = 125

23) 3 : 8

24) 16÷2 = 8
    8x60 = $480

25)

Line of symmetry

26) 2/5x5/8 = 1/4
    1/4÷5 = 1/4x1/5 = 1/20 litres .

27) 1/2x(2/7+2/5) = 12/35

28) 1/2x60÷1/5 = 150

29) 80x40 = 3200
    1/2x80x20x2   = 1600
    3200-1600 = 1600 sq cm

30) Shaded WXYZ : unshaded area : Shaded PQRS
      3   :   2
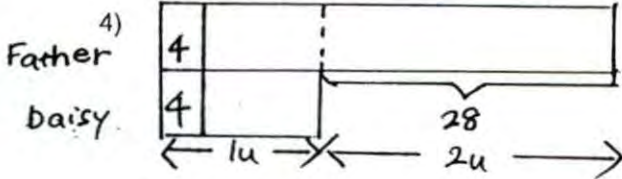   1 :   8
    ----
      3   :   2   :   16
    Ans : 3 : 16

Paper 2

1) 749÷107x100 = $700

2) 2x2x2x10 = 80 cubic cm

3) 17/24÷1/8 = 17/3 = 5 R2
   17/24-5/8 = 1/12 m

4)

Father

Daisy

2u – 28
3u – 3/2x28 = 42
42-4 = 38 years old

5) 200÷2 = 100
   100-40 = 60
   60/200x100% = 30%
   NB: Triangle ZBC is half of a rectangle, Triangle ADZ is half of another rectangle, hence the 2 triangles make up half the rectangle ABCD, so the shaded area is the 2 triangles less 40 cubic cm

6)

Joe

Alex

Sean

8u – 96
9u – 9/8x96 = 108

7)
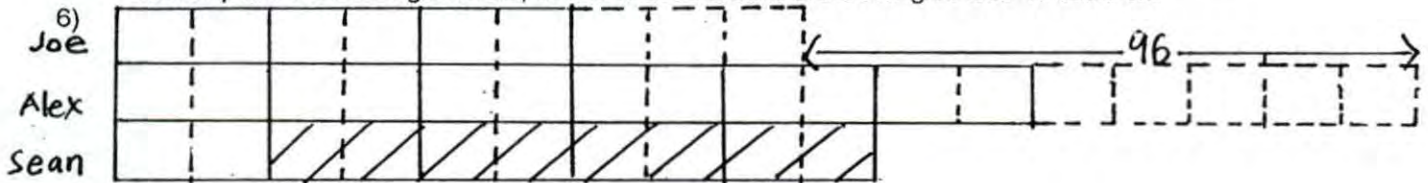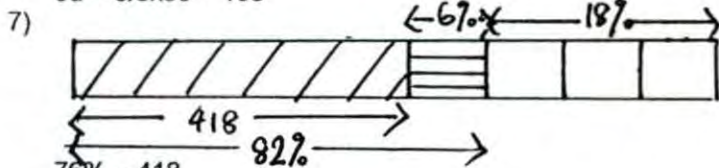
76% – 418
100% –100/76x418 = 550 books

8) 12+18 = 30
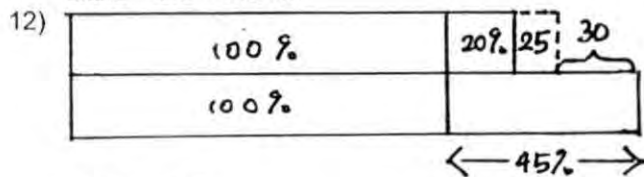   30 ÷ (5-3) = 15 pupils

9) 8x3 = 24
   24+6 = 30
   180÷30 = 6
   6+2 = 8
   6x8 = $48

10) Assume all are 40c stamps
   20x$0.40 = $8
   $9.30-$8 = $1.30
   $0.50-$0.40 = $0.10
   $1.30÷$0.10 = 13

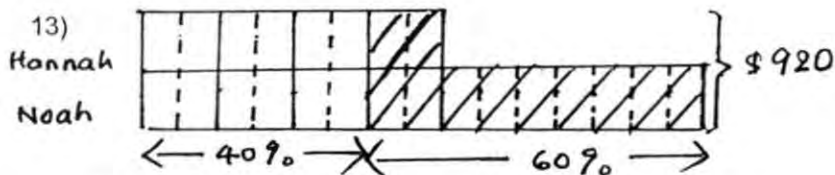11a) $10 \div 2/5 = 25$
   $25 + 1 = 26$
b) $5 - 2 = 3$
   $3 \times 2/5 = 6/5 = 1.2$ km

12)

| 100 % | 20% | 25 | 30 |

| 100 % | | |

$\longleftarrow 45\% \longrightarrow$

25% — $55
20% — 20/25 x $55 = $44
$44 + $25 = $69

13)

Hannah

Noah

$\longleftarrow 40\% \longrightarrow\!\!\times\!\!\longleftarrow 60\% \longrightarrow$ } $920

23u — $920
15u — 15/23 x $920 = $600
2u — 2/23 x $920 = $80

14) $2 \times 2 = 4$
   $5 \times 2 = 10$
   $3 \times 4 = 12$
   $10 + 12 = 22$
   $1980 \div 22 = 90$
   $90 \times 5 = 450$
   $90 \times 3 = 270$
   $450 - 270 = 180$

15) $2 + 5 = 7$
   $7 \times 3 = 21$
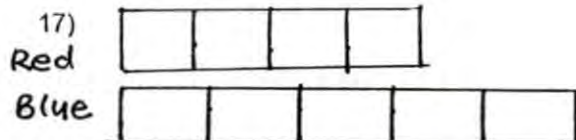 $21 + 5 = 26$
   $26 \times 2 = 52$
   $52 + 5 = 57$

16) 70% — $2590
   100% — 100/70 x 2590 = $3700
   $3700 \div 5 \times 4 = 2960
   $2590 \div 5 \times 4 = 2072
   $2960 - $2072 = $888

17)
Red

Blue

a) 1R+2B = 64
   3R+3B = 120
   4R+5B = 64+120 = 184
b) 3R+6B = 64x3 = 192
   3B = 192-120 = 72
   5B = 72÷3x5 = 120

18)

Adam

Lynn

$6u - 18$
$13u - 13/6 \times 18 = 39$