



Rosyth School  
First Continual Assessment 2011  
Mathematics  
Primary 6

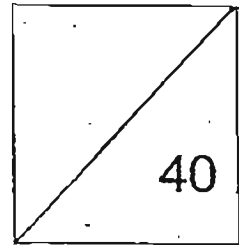
Name: \_\_\_\_\_

Class: Pr 6- \_\_\_\_\_ Register No. \_\_\_\_\_

Duration: 50 minutes

Date: 2 March 2011

Parent's Signature: \_\_\_\_\_



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**PAPER 1 (BOOKLETS A & B)**

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. For questions 1 to 15 in Booklet A, shade the correct ovals on the Optical Answer Sheet (OAS).
4. You are **not** allowed to use a calculator.

Booklet	Total Marks	Marks
A	20 marks	
B	20 marks	
Paper 1 Total		

\*This paper consists of 14 pages altogether.

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Booklet A

Question 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 and 4). Shade the correct answer on the OAS  
(Optical Answer Sheet)

(20 marks)

1) Which of the following number below is a ~~multiple of 4~~  
factor of 24

(1) 9

(2) 12

(3) 56

(4) 72

2) Express 35 minutes as a ratio of 140 minutes.

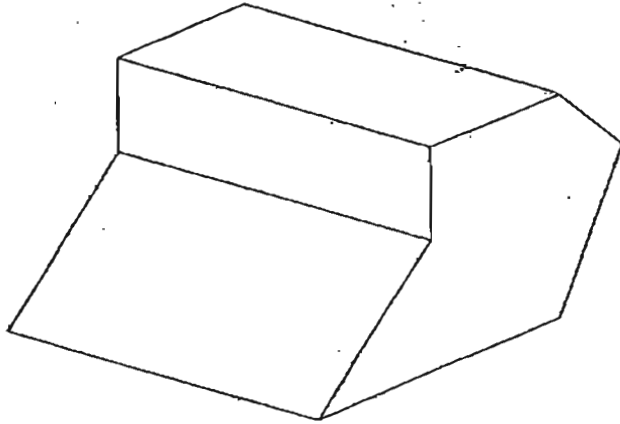
(1) 1:4

(2) 7:24

(3) 5:28

(4) 4:35

3) How many faces does the figure below have?



~~(1)~~ 5

~~(2)~~ 6

~~(3)~~ 7

~~(4)~~ 8

4) If  $X : Y = 2 : 9$  and  $Y : Z = 3 : 4$ , what fraction of  $Z$  is  $X$ ?

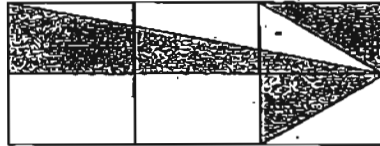
~~(1)~~  $\frac{1}{6}$

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

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

~~(4)~~  $\frac{2}{3}$

- 5) The figure below is divided into 6 equal parts. What fraction of the figure is shaded?



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

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

~~(3)~~  $\frac{5}{12}$

~~(4)~~  $\frac{5}{6}$

- 6) Arizuan has \$p. Brenda has 5 times as much as Arizuan. Desmond has \$7 less than Brenda. What is the total amount of money the 3 pupils have in terms of p?

~~(1)~~  $\$(11p - 7)$

~~(2)~~  $\$(11p + 7)$

~~(3)~~  $\$(6p - 7)$

~~(4)~~  $\$(6p + 7)$

- 7) There are twice as many girls as boys in a class of 30 pupils. If half of the girls wear spectacles and only 4 of the boys wear spectacles, what is the ratio of the number of girls wearing spectacles to the number of boys wearing spectacles?

~~(1)~~ 15 : 4

~~(2)~~ 5 : 2

~~(3)~~ 15 : 2

~~(4)~~ 5 : 1

- 8) The table below shows the number of books read by some pupils in a class.

Number of books read by each pupil	0	1	2	3	4
Number of pupils	4	7	12	6	4

How many pupils read at least 2 books?

~~(1)~~ 11

~~(2)~~ 12

~~(3)~~ 22

~~(4)~~ 23

- 9) If  $v = 4$ , find the value of  $3v - 4 + 2v - 1$ .

~~(1)~~ 7

~~(2)~~ 9

~~(3)~~ 15

~~(4)~~ 25

- 10) Mr Bala gave  $\frac{2}{5}$  of his salary to Mrs Bala. She spent  $\frac{3}{5}$  of (it) on groceries and saves the rest. What fraction of Mr Bala's salary did she save?

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

~~(2)~~  $\frac{6}{25}$

~~(3)~~  $\frac{9}{25}$

~~(4)~~  $\frac{2}{5}$

- 11) Amanda is 12 years old now. Her mother is 4 times as old. What will the ratio of Amanda's age to her mother's age in 8 years' time?

~~(1)~~ 5 : 17

~~(2)~~ 5 : 14

~~(3)~~ 5 : 12

~~(4)~~ 5 : 6

- 12) Gerald and Timothee had 120 cones of ice-cream each, to sell at the year-end fair. Gerald sold  $\frac{3}{5}$  of his cones while Timothee sold  $\frac{5}{8}$  of his. What fraction of the total cones of ice-cream was left unsold?

~~(1)~~  $\frac{3}{8}$

~~(2)~~  $\frac{29}{40}$

~~(3)~~  $\frac{31}{40}$

~~(4)~~  $\frac{31}{80}$

- 13) If  $\frac{1}{4}$  of A is equal to  $\frac{2}{3}$  of B, what is the ratio of A : B?

~~(1)~~ 3 : 7

~~(2)~~ 4 : 3

~~(3)~~ 7 : 3

~~(4)~~ 8 : 3

14) The ratio of the length of a rectangle to its breadth is 5 : 2. Find the length of the rectangle if the perimeter is 84 cm.

~~(1)~~ 12 cm

~~(2)~~ 24 cm

~~(3)~~ 30 cm

~~(4)~~ 60 cm

15) Some pupils sat for a recent examination.

23 pupils scored A\* for Mathematics.

19 pupils scored A\* for English.

9 pupils scored A\* for both subjects.

7 pupils who sat for the examination did not get A\* for any of the subjects.

1 pupil was absent and did not sit for any of the subjects in the examination.

What is the total number of pupils in the class?

~~(1)~~ 32

~~(2)~~ 40

~~(3)~~ 41

~~(4)~~ 50



**Booklet B**

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) Evaluate  $36 - 25 \div (2 + 3) \times 6 + 9$

Ans: \_\_\_\_\_

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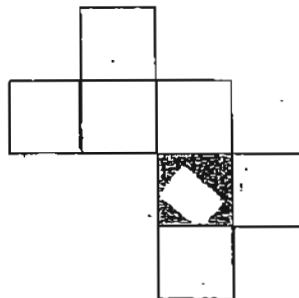
17) Simplify the equation below.

$$3y + 3 + 2y - 5 - y + 4$$

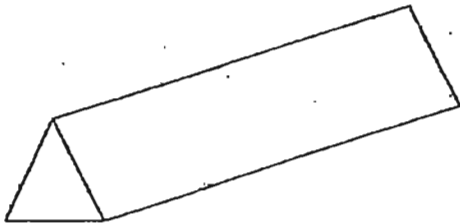
Ans: \_\_\_\_\_

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18) The figure below shows the net of a cube with an extra face. The shaded face is the base of the cube. Put a cross (X) on the extra face.



19) The diagram of a solid is shown below.



How many triangular faces are there in the solid?

Ans: \_\_\_\_\_

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20)

Azzimah ate  $\frac{1}{10}$  of a pizza. She then divided the remainder into 6 equal pieces. What fraction of the whole pizza is each remaining piece?

Ans: \_\_\_\_\_

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21)

The mass of a durian is 5 times the mass of a pear. The mass of a pear is 3 times the mass of a rambutan. What is the ratio of the mass of the rambutan to the mass of the durian?  
durian

Ans: \_\_\_\_\_

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- 22) The ratio of Amanda's age to Clara's age is 4 : 3. If Amanda is 12 years 4 mths old, what is their total age?

Ans: \_\_\_\_\_ yrs \_\_\_\_\_ mths

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- 23) The total sum of 8 numbers is 48. When two new numbers are added to the sum of 48, the new average is 9. Find the sum of the two new numbers.

Ans: \_\_\_\_\_

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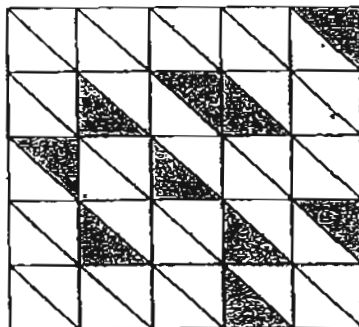
24) Find the value of the expression below when  $p = 6$ .

$$(6 + 4p - 3 - 2p) \div 2$$

Ans: \_\_\_\_\_

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25) In the diagram below, how many more triangles must be shaded so that  $\frac{3}{5}$  of it is shaded?



Ans: \_\_\_\_\_

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

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- 26)  $1\frac{2}{3}$  m of crepe paper streamers is cut into shorter pieces. Each of the shorter pieces is  $\frac{1}{5}$  m long. What is the length of the remaining piece?

Ans: \_\_\_\_\_ m

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- 27) Penny saves \$ d each month. Cherie saves 3 times as much as Penny each month. Mrs Tan adds \$10 into their accounts each month as a reward for saving their money. In 6 months' time, what will be the total savings of both girls in terms of d?

Ans: \$ \_\_\_\_\_

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- 28) The ratio of the number of Donovan's stickers to the number of Hong Yi's stickers is 10 : 3. After Donovan gave Hong Yi  $\frac{1}{5}$  of his stickers, Hong Yi had 30 stickers less than Donovan. How many stickers did Donovan give to Hong Yi?

Ans: \_\_\_\_\_

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- 29) Elizabeth, Chew Lin and Min Yi have 230 stamps altogether. If Elizabeth has 54 stamps and Chew Lin has 45 stamps more than Elizabeth, how many stamps does Min Yi have?

Ans: \_\_\_\_\_

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- 30) There are three consecutive odd numbers. The average of the first and second number is 24. The average of the second and third number is 26. What is the sum of the three numbers?

Ans: \_\_\_\_\_

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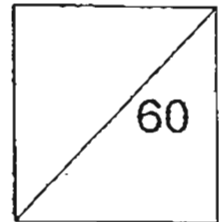
~END OF PAPER 1~



Rosyth School  
First Continual Assessment 2011  
Mathematics  
Primary 6

Name: \_\_\_\_\_

Class: P6-\_\_\_\_\_ Register No. \_\_\_\_\_



Duration: 1h 40 minutes

Date: 2 March 2011

Parent's signature: \_\_\_\_\_

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## PAPER 2

### Instructions to Pupils:

1. Follow all instructions carefully.
2. Answer all questions.
3. Write your answers in this booklet.
4. **Show your working clearly** as marks are awarded for correct working.
5. You are allowed to use a calculator.

Questions	Total Marks	Marks
Q 1 to 5	10 marks	
Q 6 to 18	50 marks	
Paper 2 Total		

\*This paper consists of 15 pages altogether.

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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 The sum of 2 numbers is 121. One of the numbers is a multiple of 9, while the other number is a factor of 12. Find the two numbers.

Ans: \_\_\_\_\_

- 2 Vincent spent  $\frac{1}{3}$  of his allowance on a basketball, \$145.50 on a pair of shoes and had \$24.50 left. How much was Vincent's allowance?

Ans: \$ \_\_\_\_\_



3

A box weighs  $10\frac{1}{3}$  kg when filled with oranges. A similar box weighs  $7\frac{1}{5}$  kg when filled with carrots. If the mass of the oranges is twice as heavy as the carrots, what is the mass of the empty box?

Ans: \_\_\_\_\_ kg

4

A box contained some buttons.  $\frac{2}{3}$  of them were blue,  $\frac{1}{5}$  of them were yellow and the rest were red. There were 36 more yellow buttons than red buttons. How many buttons were there altogether?

Ans: \_\_\_\_\_

- 5 Class A and Class B have the same number of pupils. The ratio of the number of boys in Class A to the number of boys in Class B is 3 : 2. The ratio of the number of girls in Class A to the number of girls in Class B is 3 : 5. Find the ratio of the number of boys in Class A to the number of girls in Class B.

Ans: \_\_\_\_\_

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)

6 Hannah is  $w$  years old, Vicky is twice as old as Hannah and Nur Sarah is 5 years older than Hannah.

- (a) What is the sum of the three girls' age now?  
(b) What is the sum of the three girls' age in 10 years' time?

Ans: a) \_\_\_\_\_ [1]

b) \_\_\_\_\_ [2]

7 The table shows the photocopying charges in a shop.

Number of pages	Cost(per page)
First 150 pages	\$0.15
Next 100 pages	\$0.05
Subsequent pages	\$0.02

How much does it cost to photocopy 400 pages?

Ans: \_\_\_\_\_ [3]

- 8 The ratio of the number of Justin's stamps to the number of Sean's stamps is 3 : 5. When Justin gives 65 stamps to Sean, the ratio of the number of Justin's stamps to the number of Sean's stamps becomes 1 : 3. How many stamps did Sean have at first?

Ans: \_\_\_\_\_ [3]

- 
- 9 Valérie has 1 764 more stickers than Mark. After Mark gave Valérie 128 stickers, she had five times as many stickers as Mark. How many stickers did Mark have at first?

Ans: \_\_\_\_\_ [3]

- 10 There were 60 pupils in the canteen.  $\frac{3}{5}$  of them were girls. When some girls left the canteen, the number of girls who remained in the canteen was  $\frac{1}{4}$  of the total number of pupils who remained in the canteen. How many girls left the canteen?

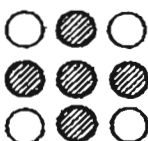
Ans: \_\_\_\_\_ [3]

- 11 Study the pattern carefully and answer the questions that follow.  
 Show your workings clearly in the space provided and write your answers in the blanks.

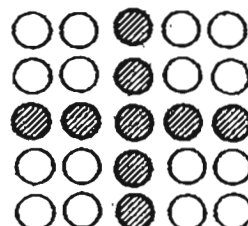
Pattern 1



Pattern 2

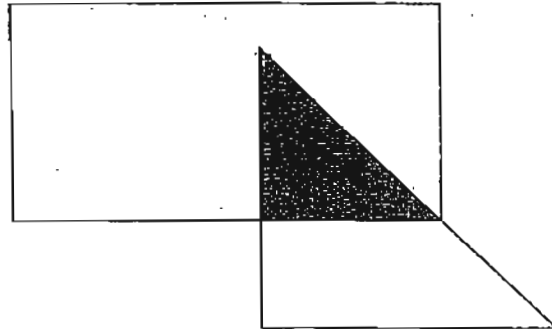


Pattern 3



Pattern Number	Number of patterned circles	Number of white circles	Total number of circles
1	1	0	1
2	5	4	9
3	9	16	25
4	13	36	49
7	(a) _____ (1m)	(b) _____ (1m)	
12			(c) _____ (2m)

- 12 The figure below is made up of a triangle and a rectangle.  
The ratio of the area of the triangle to the area of the rectangle is 9 : 20.  
The shaded area is  $\frac{3}{5}$  of the area of the triangle.  
The unshaded area is  $126 \text{ cm}^2$ . Find the area of the triangle



Ans: \_\_\_\_\_ [4]

- 13 Jeanne earns \$22 more than Caleb every week. Each of them spends \$110 per week and saves the rest. When Jeanne has saved \$1 056, Caleb has only saved \$880.
- a) How long does Jeanne take to save \$1 056?
  - b) How much does Caleb earn in a week?

Ans: a) \_\_\_\_\_ [2]

b) \_\_\_\_\_ [2]



- 14 In a garden,  $\frac{2}{5}$  of the flowers are lilies.  $\frac{3}{4}$  of the remainder are roses and the rest are sunflowers. There are 568 more roses than lilies. After  $\frac{3}{4}$  of the lilies are sold, how many flowers are left in the garden?

Ans: \_\_\_\_\_ [5]

- 15 Farhan bought 1 T-shirt and 1 pair of shorts for \$16. Keith bought 1 T-shirt and 1 pair of pants for \$18. Eugene bought 6 T-shirts, 4 pairs of shorts and 1 pair of pants for \$88.
- a) What was the cost of 1 T-shirt?
  - b) What was the total cost of 1 pair of shorts and 1 pair of pants?

Ans: a) \_\_\_\_\_ [3]

b) \_\_\_\_\_ [2]

16

Mr Yusoff had some stationery in his shop.  $\frac{1}{4}$  of them were pencils,  $\frac{1}{2}$  of the remainder were pens and the rest were pencil cases. The table below shows the price of the stationery.

Price of Stationery	Price
1 Pencil	\$0.40
1 Pen	\$0.80
1 Pencil case	\$1.20

He sold some pencils, pens and pencil cases in the ratio of 3 : 4 : 5 and collected \$52. Given that he sold  $\frac{1}{2}$  of the total number of pencils, how many pencil cases did Mr Yusoff have at first?

Ans: \_\_\_\_\_ [5]

17

Farmer Dan harvested some apples. He sold to Adam  $\frac{3}{4}$  of the apples and another 105 apples. He sold to Geraldine  $\frac{3}{4}$  of the remainder but took back 55 apples. Farmer Dan had 890 apples left.

- (a) How many apples did Geraldine have after returning 55 apples to Farmer Dan ?
- (b) How many apples did Farmer Dan harvest?

Ans: a) \_\_\_\_\_ [2]

b) \_\_\_\_\_ [2]

18 During a survey, 342 women responded that they preferred romantic comedies to other types of movies. The ratio of the number of women to the number of men who liked romantic comedies was 3 : 1

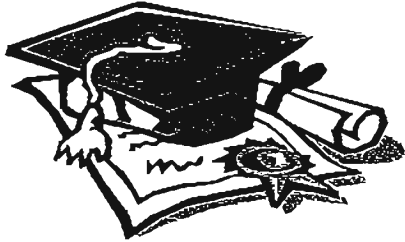
- a) How many people liked romantic comedies?
- b) The ratio of the number of people who liked romantic comedies to those who did not was 2 : 3. If 25% of the people who did not like romantic comedies were women, how many men took the survey altogether?

Ans: a) \_\_\_\_\_ [1]

b) \_\_\_\_\_ [3]

End of Paper



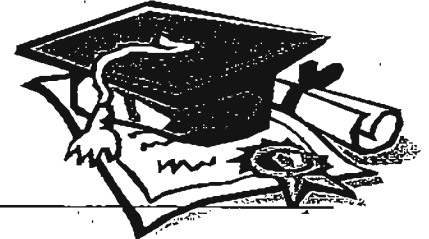


# ANSWER SHEET

**EXAM PAPER 2011**

**SCHOOL : ROSYTH PRIMARY  
SUBJECT : PRIMARY 6 MATHEMATICS**

**TERM : CA1**



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

16)15

17)4y+2

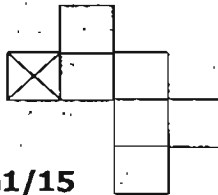
18)

19)2 triangular faces

20)3/20

21)1:15

22)21 yrs 7 mths



23)42

24)7½

25)20 more triangles

26)1/15

27)\$(24d+120)

28)29 stickers

29)77 stamps

30)75

**Paper 2**

1)117, 4	2)\$145.50+\$24.50=\$170(2/3of allowance) \$170 ÷ 2 = \$85 (1/3 of allowance) \$85 x 3 = \$255 (allowance)
3)10 <sup>1</sup> / <sub>3</sub> - 7 <sup>1</sup> / <sub>5</sub> = 10 <sup>5</sup> / <sub>15</sub> - 7 <sup>3</sup> / <sub>15</sub> = 3 <sup>2</sup> / <sub>15</sub> 7 <sup>3</sup> / <sub>15</sub> - 3 <sup>2</sup> / <sub>15</sub> = 4 <sup>1</sup> / <sub>15</sub> kg	4)Blue→2/3 = 10/15 Yellow→1/5 = 3/15 Red→1 - 10/15 - 3/15 = 2/15 3/15 - 2/15 = 1/15 1/15→36 15/15→540 buttons
5)6:5	6)a)Hannah→W Vicky→2W Nur Sarah→W+5 Total→ W + 2W + W + 5 = 4W + 5 The sum is (4W+5)years old. b)3 x 10 = 30 4w + 5 + 30 = 4w + 35 The sum is (4w+35) years old.

<p>7) <math>50 \times 0.15 = 22.50</math>  <math>100 \times 0.05 = 5</math>  <math>400 - 150 - 100 = 150</math>  <math>150 \times 0.02 = 3</math>  <math>22.50 + 5 + 3 = 30.50</math>  It costs \$30.50</p>	<p>8) Diff in Justin <math>\rightarrow 1u \rightarrow 65</math>  <math>5u \rightarrow 325</math>  Sean had 325 stamps at first.</p>
<p>9) <math>128 + 1764 + 128 = 2020</math>  <math>4u \rightarrow 2020</math>  <math>1u \rightarrow 505</math>  <math>505 + 128 = 633</math>  Mark had 633 stickers at first.</p>	<p>10) Difference in girls <math>\rightarrow 7u</math>  <math>15u \rightarrow 30</math>  <math>1u \rightarrow 4</math>  <math>7u \rightarrow 28</math>  28 girls left the canteen.</p>
<p>11) a) 25  b) 144  c) 529</p>	<p>12) shaded area <math>\rightarrow 4/9 \times 9u = 4u</math>  unshaded triangle <math>\rightarrow 9u - 4u = 5u</math>  unshaded rectangle <math>\rightarrow 20u - 4u = 16u</math>  Total unshaded <math>\rightarrow 16u + 5u = 21u</math>  <math>21u \rightarrow 216</math>  <math>1u \rightarrow 6</math>  <math>9u \rightarrow 54</math>  The area of the triangle is 54cm<sup>2</sup></p>
<p>13) a) <math>J = C + 22</math>  <math>1056 - 880 = 176</math>  <math>176 \div 22 = 8</math>  Jeanne takes 8 weeks to save \$1056.  b) <math>1056 \div 8 = 132</math>  <math>132 + 110 = 242</math>  <math>242 - 22 = 220</math>  Caleb earns \$220 in a week.</p>	<p>14) <math>1u \rightarrow 568</math>  <math>8u \rightarrow 4544</math>  <math>20u \rightarrow 11360</math>  <math>3/4 \times 4544 = 3408</math>  <math>11360 - 3408 = 7952</math> flowers.</p>
<p>15) a) <math>1T + 1S = \\$16</math>  <math>4T + 4S = \\$64</math>  <math>6T + 4S + 1P = \\$88</math>  <math>2T + 1P = \\$24</math>  <math>1T + 1P = \\$18</math>  <math>1T \rightarrow \\$24 - \\$18 = \\$6</math>  1 T-shirt costs \$6.   b) <math>1S = 16 - 6 = 10</math>  <math>1P = 18 - 6 = 12</math>  <math>1S + 1P = 10 + 12 = 22</math>  The total cost is \$22.</p>	<p>16) <math>3 \times 0.40 = 1.20</math>  <math>4 \times 0.80 = 3.20</math>  <math>5 \times 1.20 = 6</math>  <math>1.20 + 3.20 = 6 = 10.40</math> (1 set)  <math>52 \div 10.40 = 5</math>  <math>5 \times 9 = 45</math> pencil cases.   17) a) <math>890 - 55 = 835</math>  <math>3/4 r \rightarrow 2505</math>  <math>2505 - 55 = 2450</math>  Geraldine had 2450 apples.  b) remainder <math>\rightarrow 3340</math>  <math>16u - 12u = 4u</math>  <math>4u \rightarrow 3340 + 105 = 3445</math>  <math>16u \rightarrow 13780</math>  Farmer Dan harvested 13780 apples.</p>



**18)a)456 people liked romantic comedies.**

**b)100% - 25% = 75%**

$$75/100 = \frac{3}{4}$$

$$\frac{3}{4} \times 12u = 9u \text{ (men)}$$

$$9 \times 57 = 513$$

$$513 + 114 = 627$$

**627 men took the survey altogether.**

