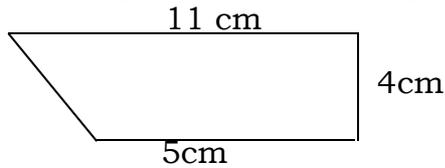1) A line of gradient $^3/_2$ passing through point Q (4, 8), cuts the y-axis at a point P. Find the coordinates of P.

2) Given that f(x) = xa + 3 and f (3) = 21, find the value of a.
   Hence find f(-1).

3) A shopkeeper buys 180 oranges for Shs. 1800. He finds that some are bad and throws them away. He sells the remaining Sh.15 each, hence making a profit of Sh.450. How many oranges were thrown away?

4) Plot the points A(2, 4), B(3, 2) and C(5, 3) on a Cartesian plane and join them to form a triangle.

   a) Reflect triangle ABC through the $y = x$ and state the coordinates of A^1,B^1 and C^1 the images of A, B and C after reflection.
   b) Calculate the area of the triangle ABC

5) A plot of land 32m by 12m is to be divided into square gardens of sides 4m. Find the number of gardens.
6) Evaluate

$$\frac{18 \div 3 of\,(-2) \times 8 \div 24}{-4 \div 6 \times 2}$$

7) A sales woman earns a basic salary of Ksh. 10,000 per month plus commission of 4% of all the sales above Ksh.50,000. Find her gross income for a month in which she sold goods of value Kshs.90,000.

8) Melissa deposited shs. 20,000 in Post Bank for 2 years at a rate of 12 ½ per annum. How much money did he have in the bank after 2 years.

9) After covering 45 km, Matama still had $^2/_5$ of the journey to cover. How long was the journey?

10)   The average age of 4 boys is 15 years. Three of them are 10, 12 and 18 years old. Find the age of the fourth boy

11) The figure below is a trapezium, calculate its area.

11 cm

4cm

5cm

12) Mr. Ssali divided his monthly salary of shs. 120,000 amongst his sons; Ssentongo, Kkonde and Mugerwa in the ratio 3:4:5 respectively.
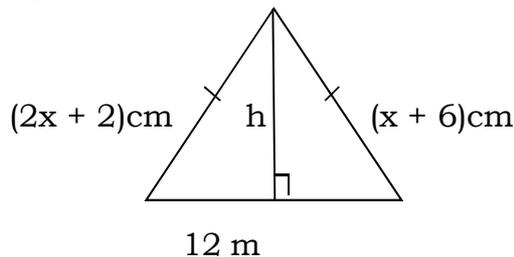   a. How much money did each son get?

   b. How much more money did Mugerwa get than Ssentongo?

13) Ngobi bought the following items from a market:
   3 kg of sugar at shs. 1,500 per kg.
   2 ½ kg of rice at shs. 1,400 per kg.
   1 ½ kg of tea leaves at shs. 200 per kg.
   200 g of spices at shs. 3,000 per kg.

   a. How much money did he spend altogether?
   b. If he gave the shopkeeper a ten thousand shilling note, how much money did he get back as change?

The figure below is an isosceles triangle.

$(2x + 2)$cm   h $(x + 6)$cm

12 m
(a) Find the value of x.
(b) Calculate the value of h.
(c) Work out the area of the triangle.

14) Lydia had shs. 50,000 and she went to the market and bought the following items in the table shown.

(a) Complete the table

Item	Price	Total cost
3 kg of meat	Shs. 3,500 per kg	Shs..............................
2 ½ kg of rice	Shs..................... per kg	Shs. 5000
...............litre of milk	Shs. 800 per littre	Shs. 4800
3 loaves of bread	Shs. 1500 per loaf	Shs..............................
EXPENDITURE		Shs..............................

(b) If she was given a 5% discount on her bill, how much did she pay?

(c) How much money was she left with?

15)   Use the table below to answer the questions that follow:

Food	Rent	Medical	School fees
20%	25%	40%	X%

Illustrate the above information on a pie chart of radius 4 cm.
Find the value of X in degrees.

16)   A rectangle has sides 20cm long by 15cm wide. If the length is increased by 40% and the width decreased by 20%. Find the percentage increase or decrease in the area.

17)   A boatman sailed from Island P heading to island Q which is East of P and 12km away, then he continued on bearing $135°$ to island R 8km away.

   a.   Using a scale of 1cm to represent 2km, construct the route of a boatman.

   b.   Find the shortest distance between P and R.

   c.   Find the bearing of R from P.

18)   Given that a = 3, b = -1 and c=2, evaluate $\dfrac{a-b^2}{4-2b+c}$ in its simplest form.

19)   The table below shows the height of various children in P.7 class in feet.

Height in cm	140	130	150	160
No. of children	2	3	4	1

   a.   What is the total number of children in the class?

   b.   What is the modal frequency of the heights?

   c.   Calculate the mean height of the class.

   d.   Present the information on a bar graph

END