1. Complete the table below for y = 2x - 3

x	1	2	3
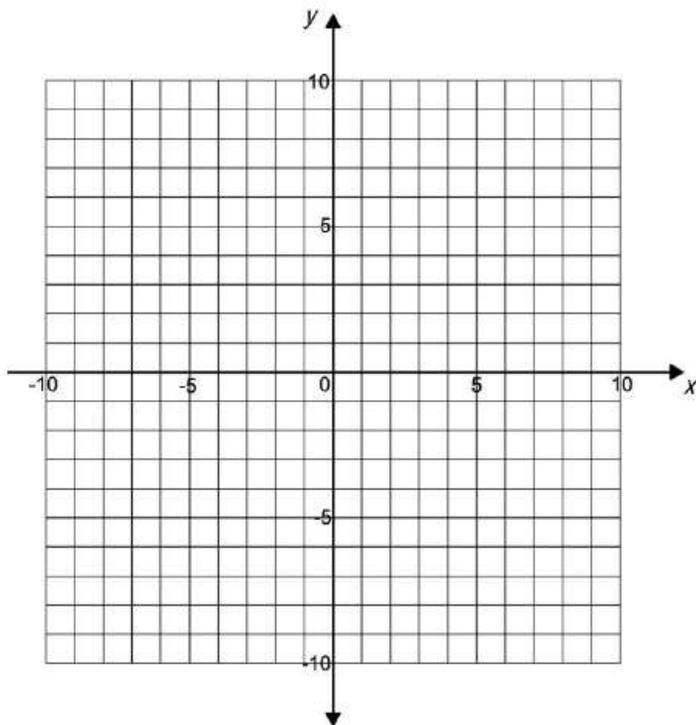
2. Line CD is shown on the grid below

   Write done the equation of the line CD
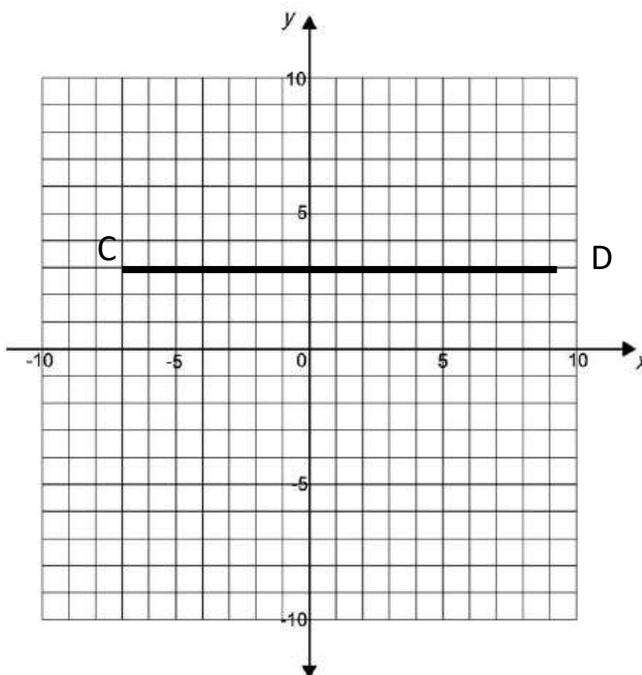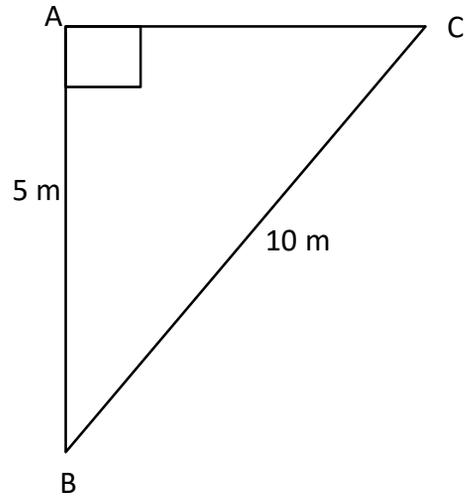
3. Solve the following equation:

$$5y + 6 = -9$$

5. Change the subject of the formula to a
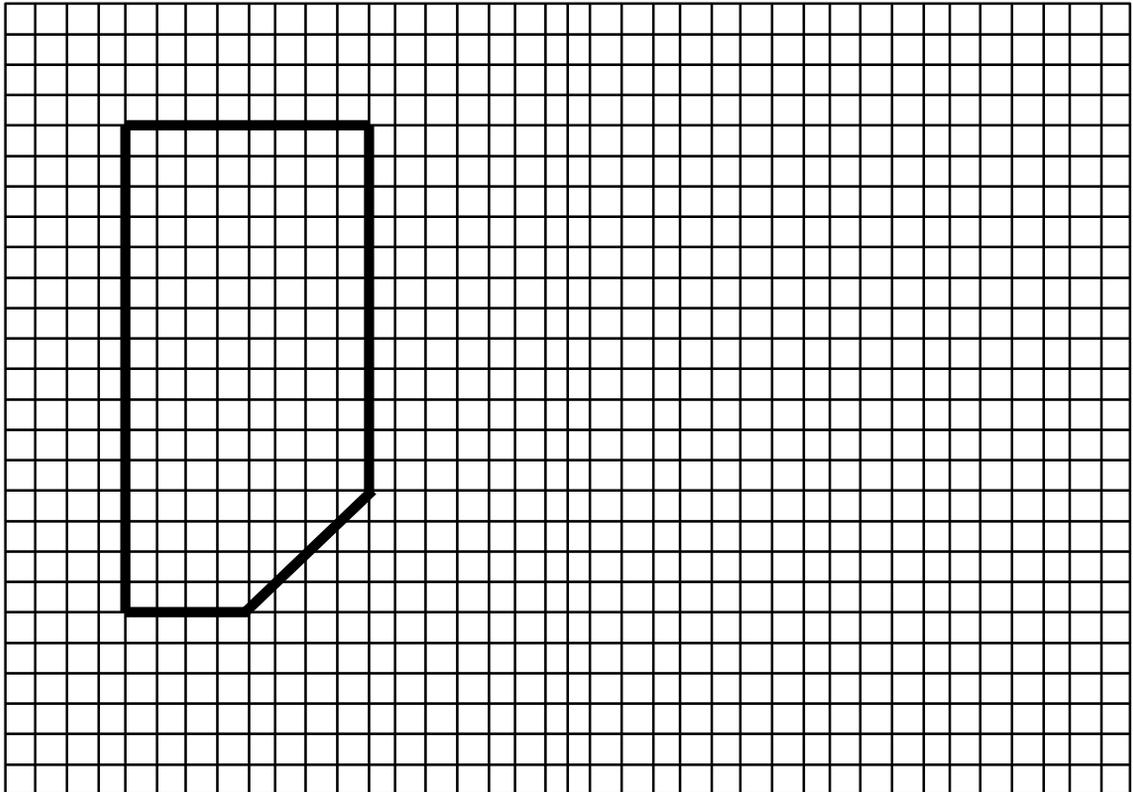
$$b = 3a + 5$$

6. Triangle ABC is a right-angled triangle as shown in the diagram below

   BC is 10 metres long and AB is 5 metres long.
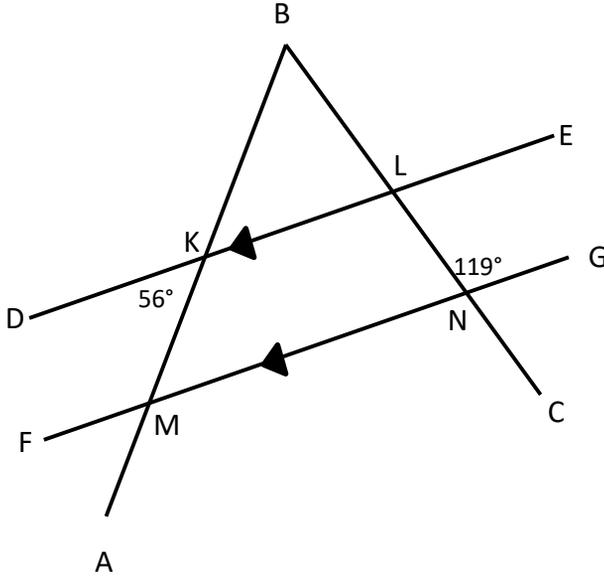
   Calculate the length of AC in metres

7. On the diagram below, drawn an enlargement of the given shape using a scale factor of $\frac{3}{2}$
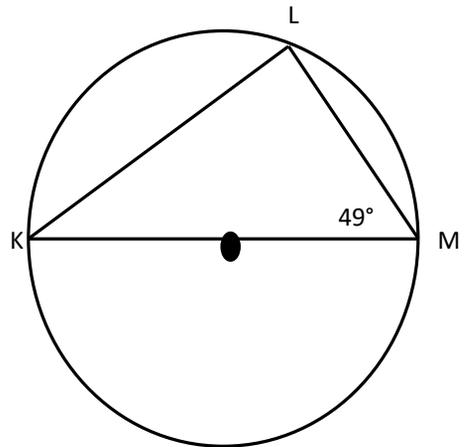
1. In the diagram below lines DE and FG are parallel
   Lines AB and BC intersect DE and FG at the points P, Q, R and S as shown.
   Angle DKM is 56° and angle LNG is 119°

   Calculate the size of angle ABC. **All working must be shown.**

   B

   E

   L

   K

   119° G

   56°

   D

   N

   C

   F   M

   A
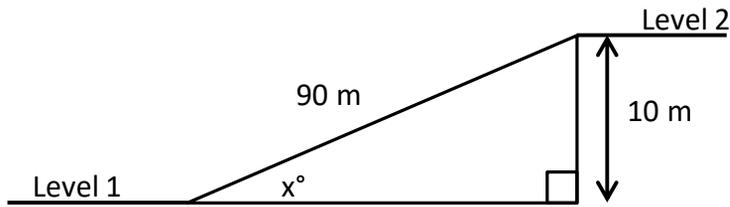
2. CD is a diameter of a circle centre O.
   L is a point on the circumference of the circle
   Angle KML is 38° Calculate the size of angle LKM

   L

   49°

   K   M

3. Calculate the length of the side x in the following right-angled triangle below

   x

   37°

   34 m
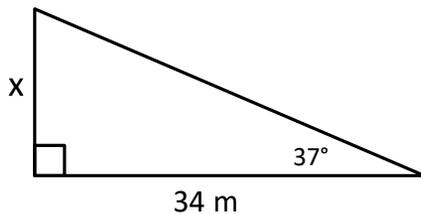
4. A ramp 120m long slopes at an angle of x° from Level 1 to Level 2.
   The height between levels is 12 metres.
   (a) Calculate x°

Level 2

90 m

10 m

Level 1   x°

(b) For safety reasons x should be below 6°. Can the angle of the ramp be considered safe ?

5. A class of students sat a Geography and a History test. Here are the students marks

	Geography	History
Tom	84	75
Bob	55	53
Cecil	38	44
Bertie	65	72
Selma	78	85
Louise	66	89
Bruce	57	68

(a) Draw a scattergraph on the grid provided
(b) Draw a line of best fit
(c) Walter scored 60 marks in his geography test. Use your line to estimate the mark that he would have got in his history test
(d) Oliver scored 75 marks in his geography test but was absent for his history test. His teacher estimated her mark to be 50 for his history test.
    Is this a reasonable estimate ?

Marks

History mark (vertical axis, 0 to 100)

Geography mark (horizontal axis, 0 to 100)