

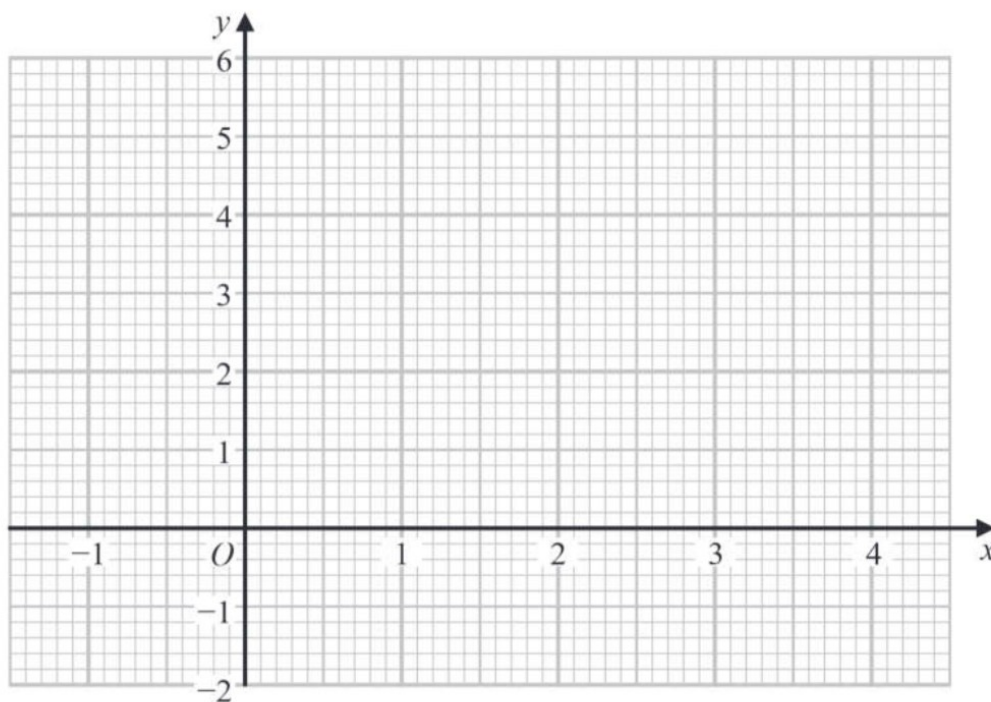
**Question 1 (6 Marks)**

(a) Complete the table of values for  $y = x^2 - 3x + 1$

$x$	-1	0	1	2	3	4
$y$		1	-1			

(2)

(b) On the grid, draw the graph of  $y = x^2 - 3x + 1$  for values of  $x$  from -1 to 4



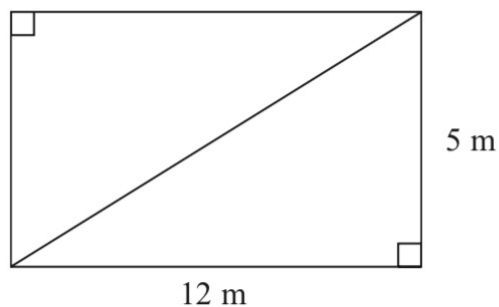
(2)

(c) Using your graph, find estimates for the solutions of the equation  $x^2 - 3x + 1 = 0$

(2)

**Question 2 (5 Marks)**

This rectangular frame is made from 5 straight pieces of metal.



The weight of the metal is 1.5 kg per metre.

Work out the total weight of the metal in the frame.

..... kg

**Question 3 (4 Marks)**

A cycle race across America is 3069.25 miles in length.

Juan knows his average speed for his previous races is 15.12 miles per hour.

For the next race across America he will cycle for 8 hours per day.

(a) Estimate how many days Juan will take to complete the race.

.....  
(3)

Juan trains for the race.

The average speed he can cycle at increases.

It is now 16.27 miles per hour.

(b) How does this affect your answer to part (a)?

.....  
(1)

**(Total 15 Marks)**