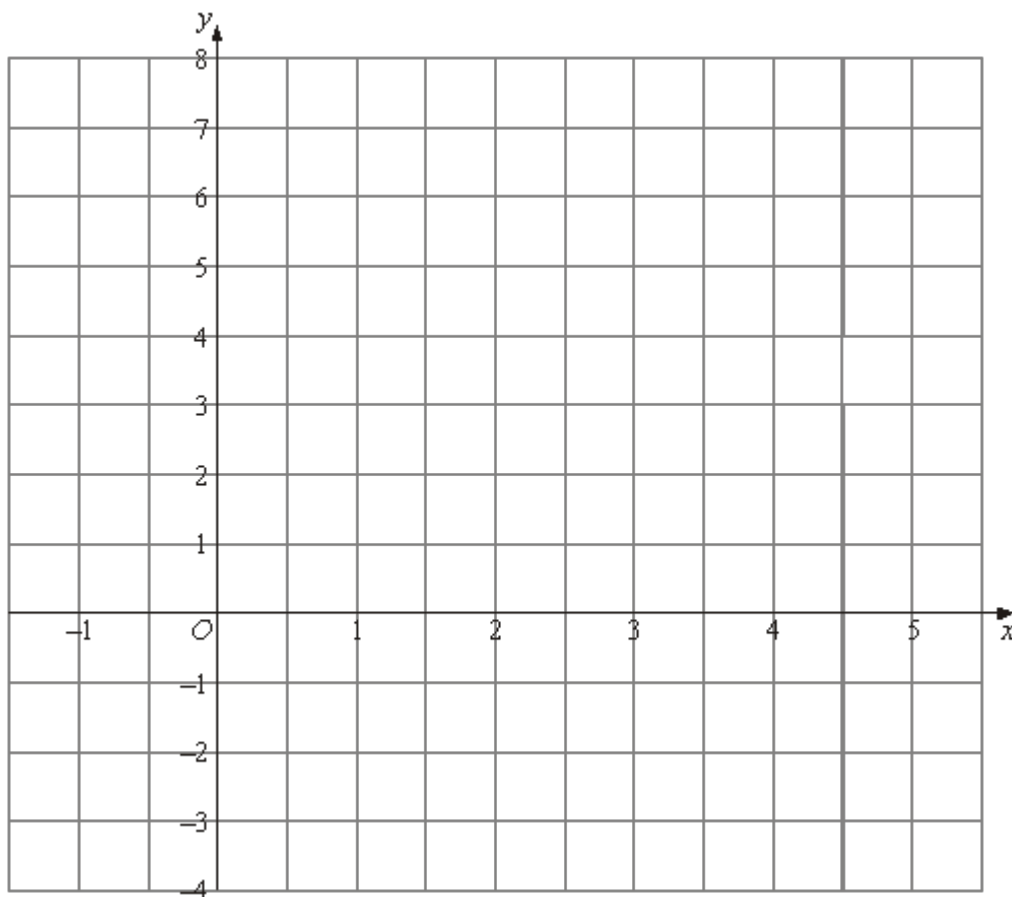


**Q1.** (a) Complete the table of values for  $y = x^2 - 4x + 2$

$x$	-1	0	1	2	3	4	5
$y$		2	-1		-1		7

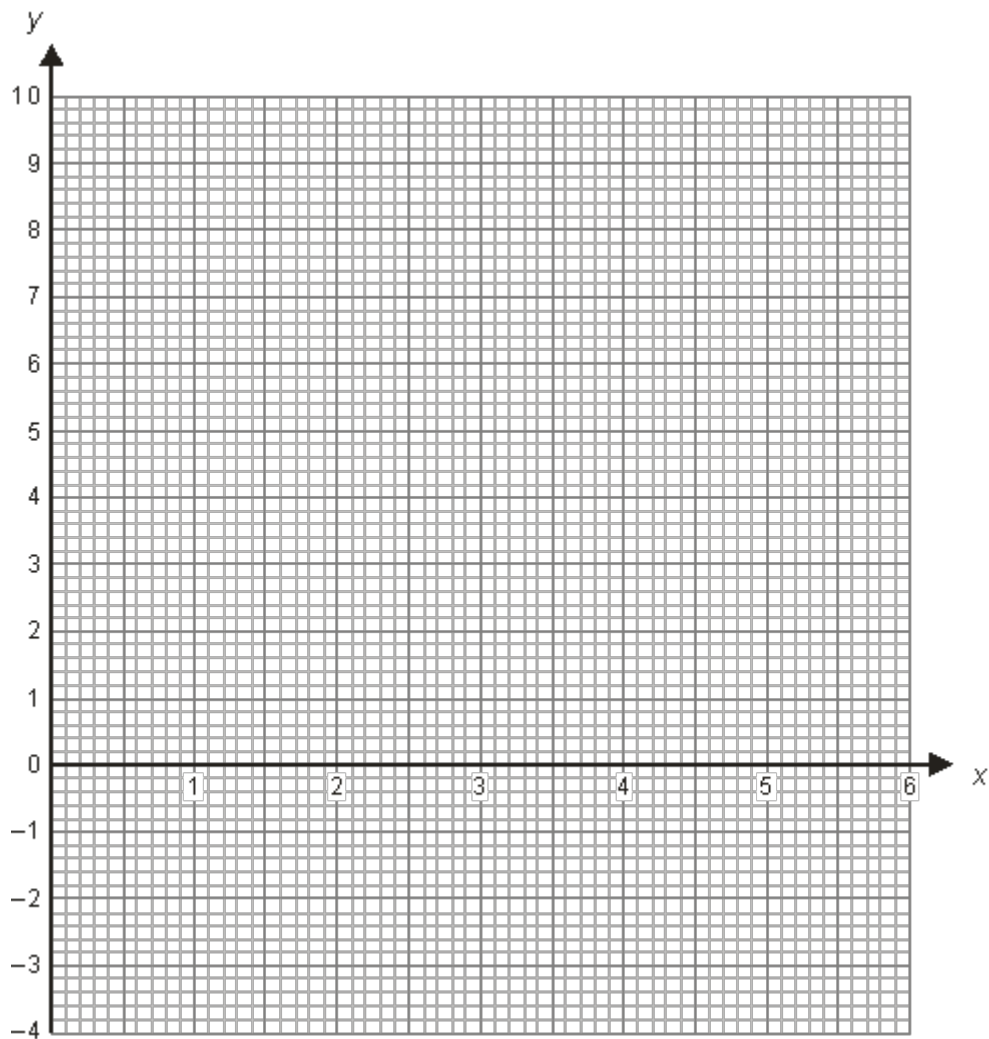
(2)

(b) On the grid, draw the graph of  $y = x^2 - 4x + 2$



(2)  
(Total 4 marks)

**Q2.** (a) On the grid draw the graph of  $y = x(x - 3)$



(2)

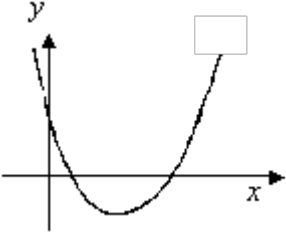
- (b) Using your result for (a), or otherwise, solve the simultaneous equations

$$y = x(x - 3)$$

$$x^2 + y^2 = 9$$

(3)  
(Total 5 marks)

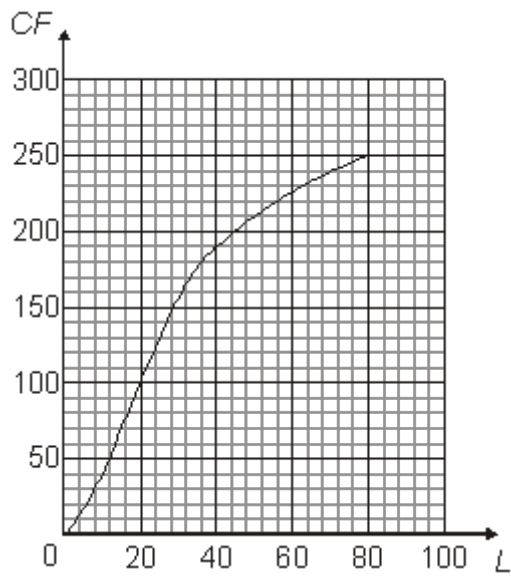
M1.

	Answer	Mark	Additional Guidance
(a)	7, -2, 2	2	<b>B2</b> all three correct ( <b>B1</b> for any one or two correct)
(b)		2	<b>B2</b> fully correct graph  <b>OR</b> <b>B1</b> ft for 7 points plotted correctly $\pm 2$ mm <b>B1</b> for smooth curve drawn through their points provided <b>B1</b> awarded in (a).
<b>Total for Question: 4 marks</b>			

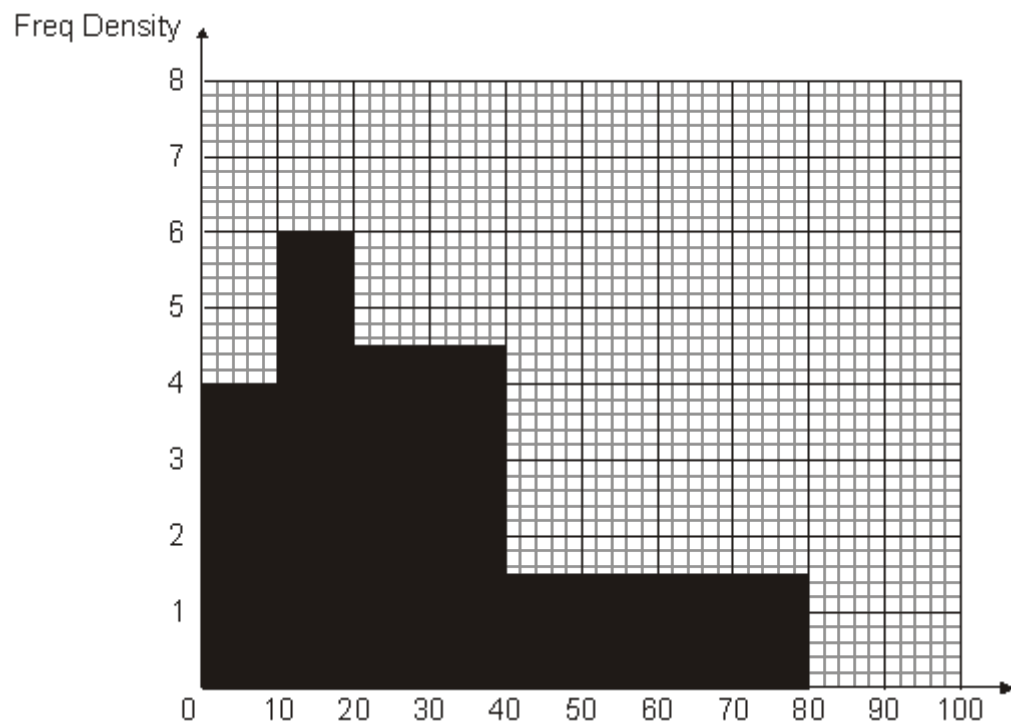
M2.

	Working	Answer	Mark	Additional Guidance
(a)		Smooth curve	2	<b>B1</b> correct plot of their values <b>B1</b> smooth curve through their points
(b)		$x = 3$ $y = 0$	3	<b>M1</b> attempts to draw circle at origin <b>M1</b> uses radius 3 cm (using graph scale correctly) <b>A1</b> cao <b>OR</b> <b>B1</b> for substituting a value of $x$ into $y = x(x - 3)$ and $x^2 + y = r^2$ <b>B1</b> for substituting $y$ into $x = 3$ into $x(x - 3)$ and $x^2 + y = r^2$ <b>B1</b> cao

**Total for Question: 5 marks**



**OR**



- E1.** This question was generally done well. In part (a), most candidates were able to gain at least 1 mark for a correct value in the table. A common error here was to find the value of  $y$  at  $x = -1$  as 6 or 5 or  $-7$ . Despite possibly having made an error in the table, many candidates were able score 2 marks in part (b) for plotting their points correctly and drawing a smooth curve through their points. A very common error here was to join the points with straight lines. A surprising number of candidates, having drawn a completely correct graph but having made an error in the table, did not go back and correct the value in the table.