



# EXAM PAPERS PRACTICE

GCSE OCR Math J560

Solving Equations  
using Graphs

Question Paper

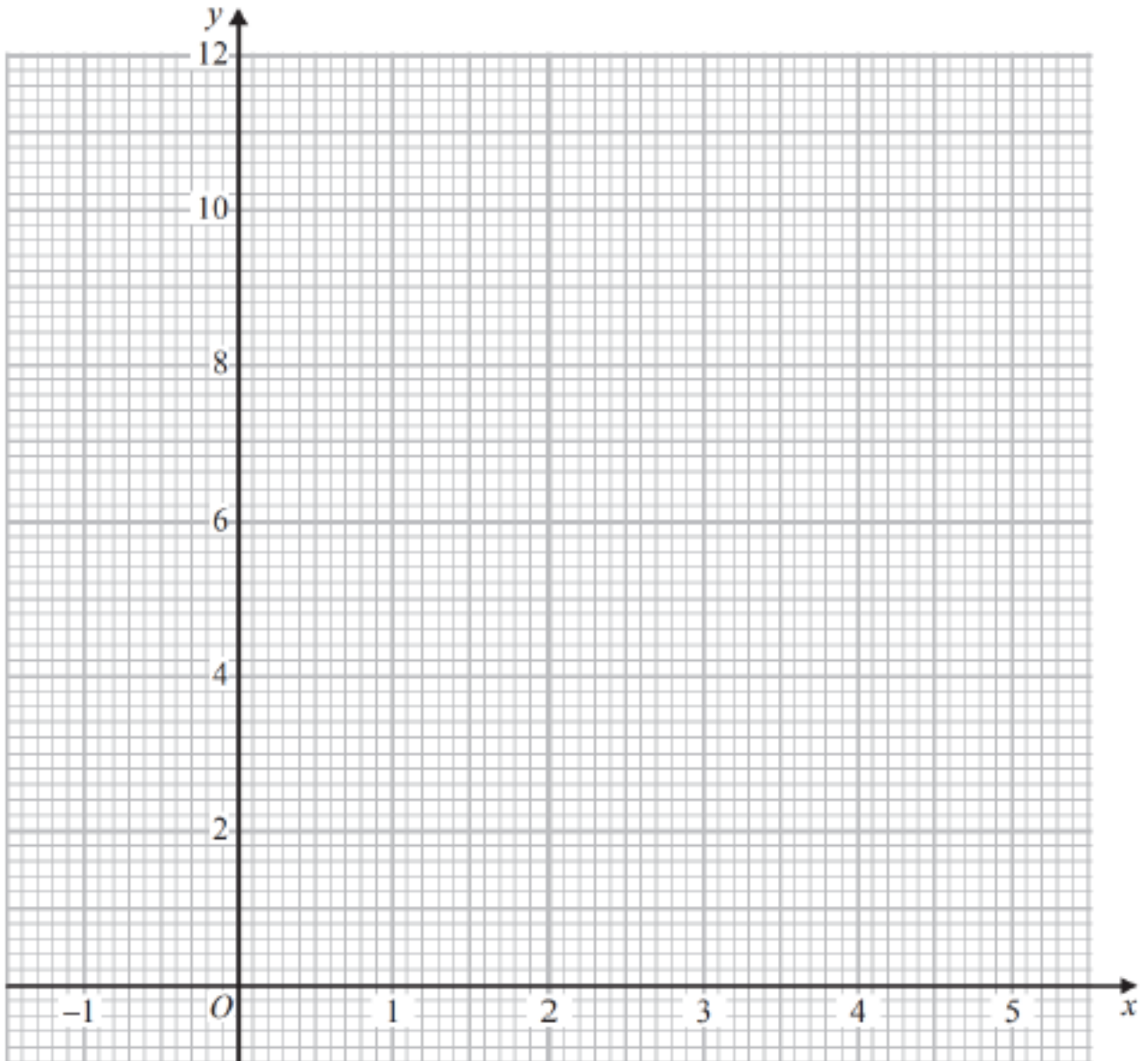
*"We will help you to*

*achieve A Star "*



**Question 1**

(b) On the grid, draw the graph of  $y = x^2 - 3x + 2$  for values of  $x$  from  $-1$  to  $5$

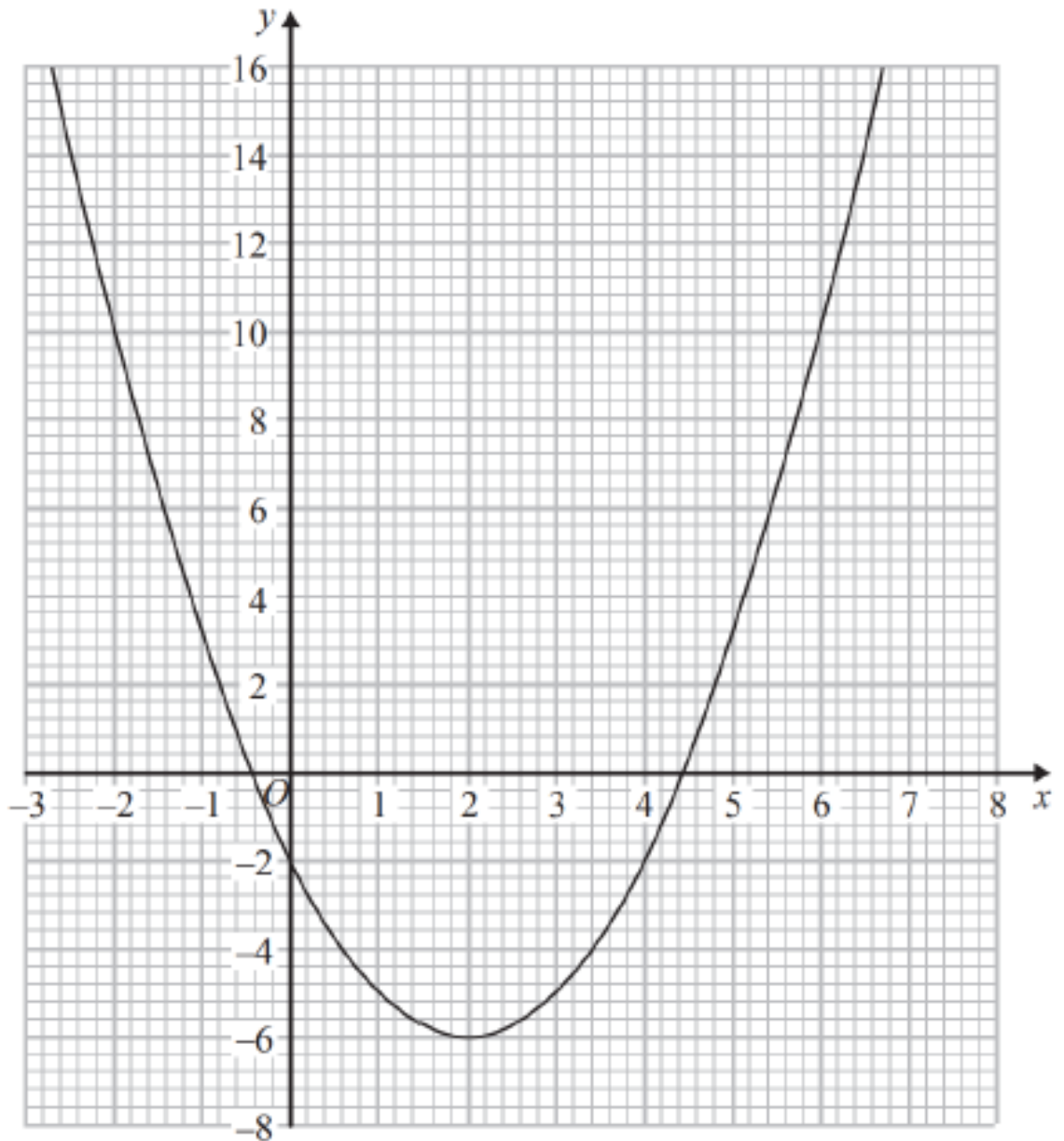


[2 marks]



**Question 2**

The diagram shows the graph of  $y = x^2 - 4x - 2$



(a) Use the graph to find estimates for the solutions of

(i)  $x^2 - 4x - 2 = 0$

(ii)  $x^2 - 4x - 6 = 0$



(11)  $x^2 - 4x - 0 = 0$

[3 marks]

**Question 3**

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

$x$	-2	-1	0	1	2	3	4
$y$	11		1	-1		1	

[2 marks]

**Question 4**

(c) By drawing a suitable straight line on the grid, find estimates for the solutions of

$$x^2 - 3x + 1 = 3$$

[2 marks]

**Question 5**

$P$  is the point on the graph of  $y = x^2 - 2x + 3$  where  $x = 2$

(b) Calculate an estimate for the gradient of the graph at the point  $P$ .

[3 marks]



**Question 6**

(b) Hence find estimates for the solutions of the simultaneous equations

$$\begin{aligned}x^2 + y^2 &= 12.25 \\ 2x + y &= 1\end{aligned}$$

[3 marks]

**Question 7**

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

$x$	-1	0	1	2	3	4	5
$y$	6				2		12

[2 marks]

**Question 8**

(c) Find estimates for the solutions of the equation  $x^2 - 3x + 2 = 4$

[2 marks]



**Question 9**

(b) Use the graph to find estimates for the values of  $x$  that satisfy the simultaneous equations

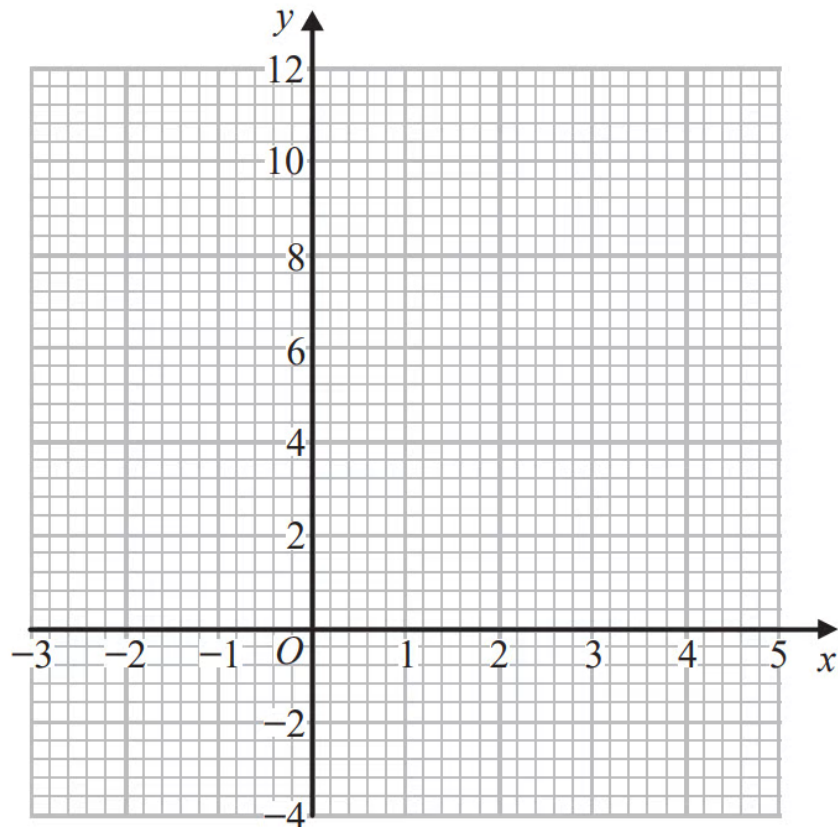
$$y = x^2 - 4x - 2$$

$$x + y = 6$$

[3 marks]

**Question 10**

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

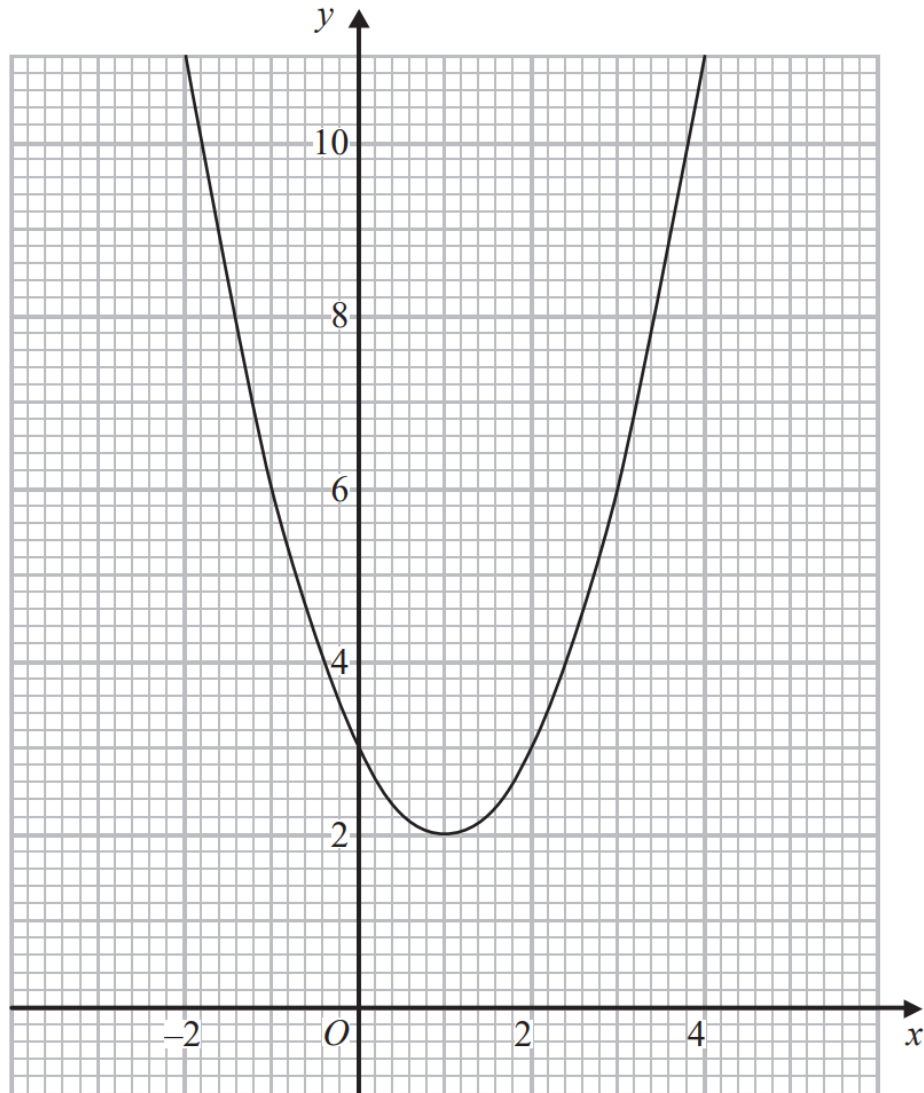


[2 marks]



**Question 11**

The diagram shows part of the graph of  $y = x^2 - 2x + 3$



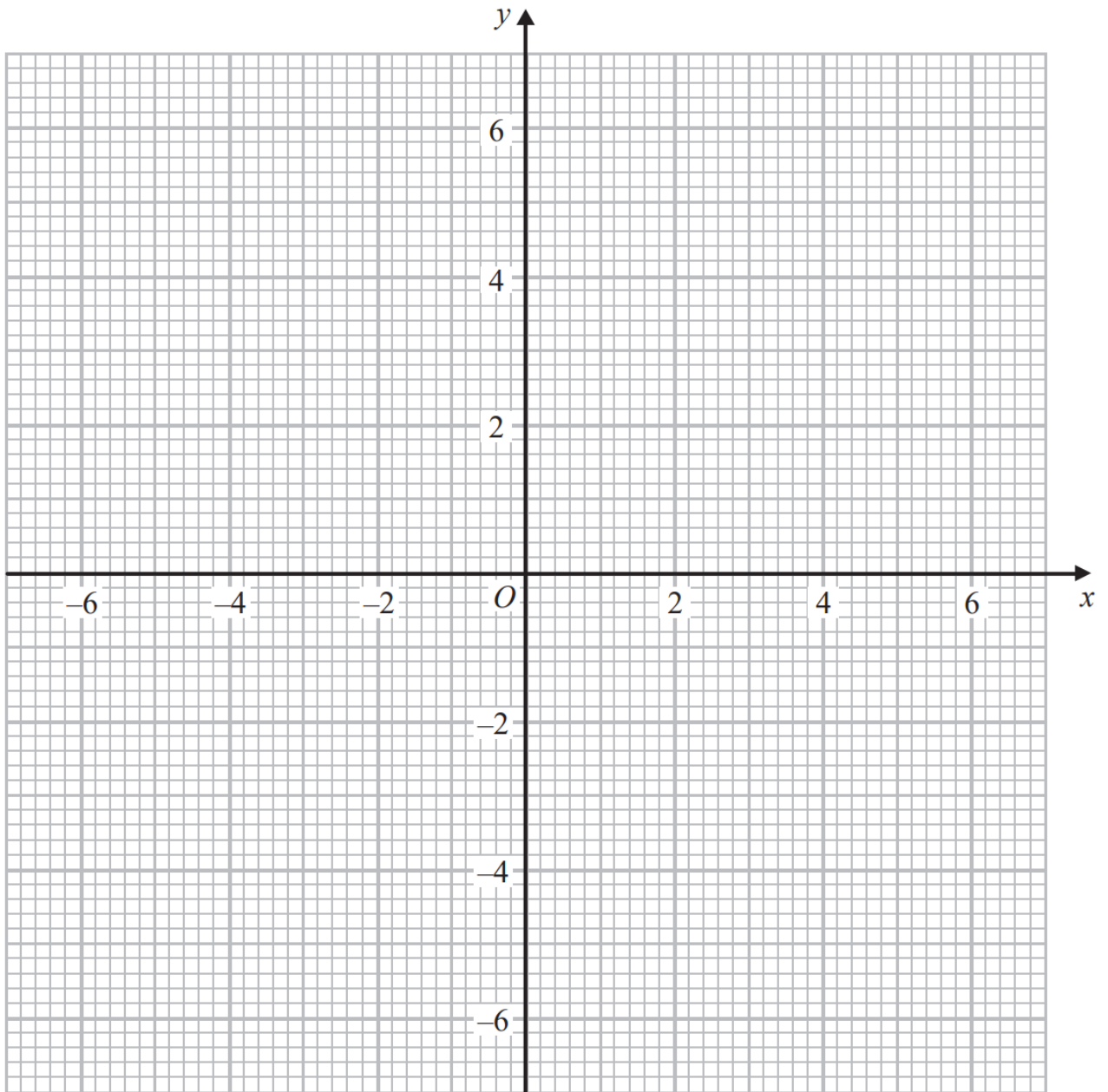
- (a) By drawing a suitable straight line, use your graph to find estimates for the solutions of  $x^2 - 3x - 1 = 0$

[2 marks]



**Question 12**

(a) On the grid, draw the graph of  $x^2 + y^2 = 12.25$



[2 marks]