



SCAN ME

# Quadratic Graphs



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REVISE THIS TOPIC

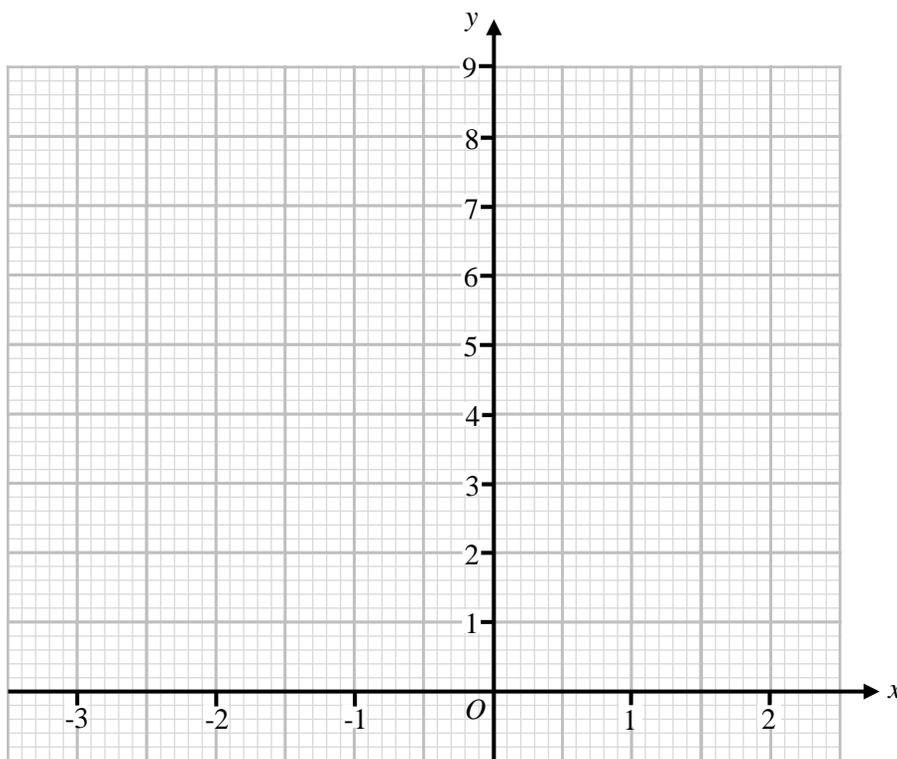
CHECK YOUR ANSWERS

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

$x$	-3	-2	-1	0	1	2
$y$	8		2	2		

(2)

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



(2)



1

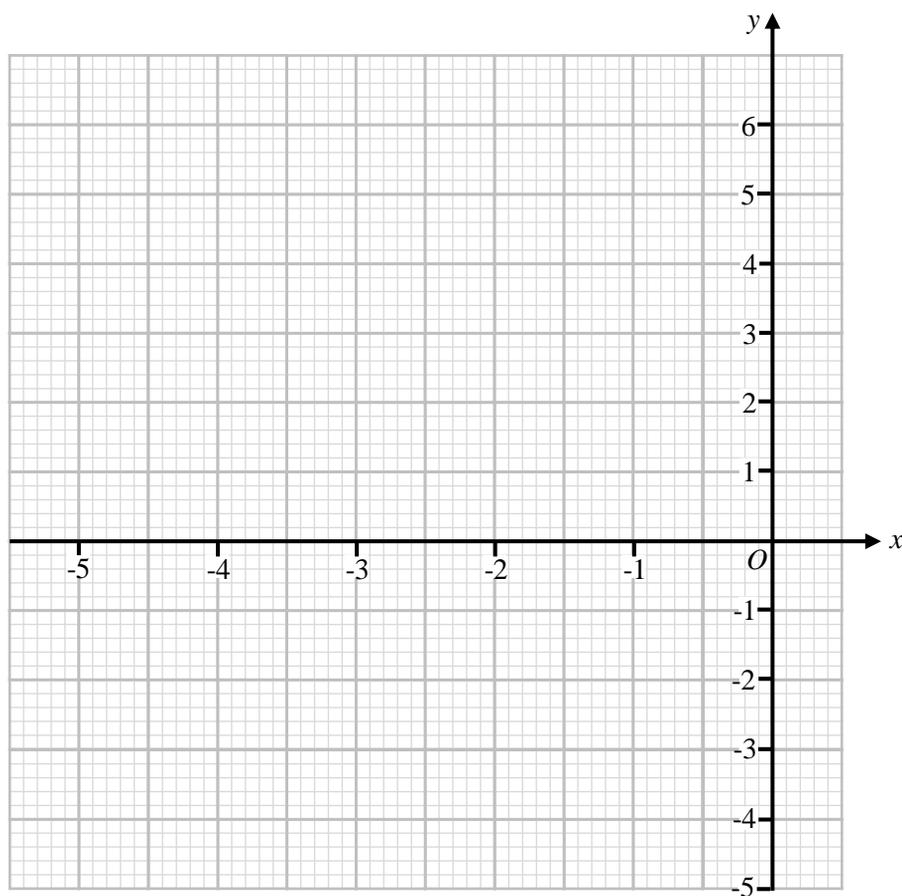
(Total for Question 1 is 4 marks)

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

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

(2)

(b) On the grid, draw the graph of  $y = x^2 + 4x$  for values of  $x$  from -5 to 0



(2)

(Total for Question 2 is 4 marks)

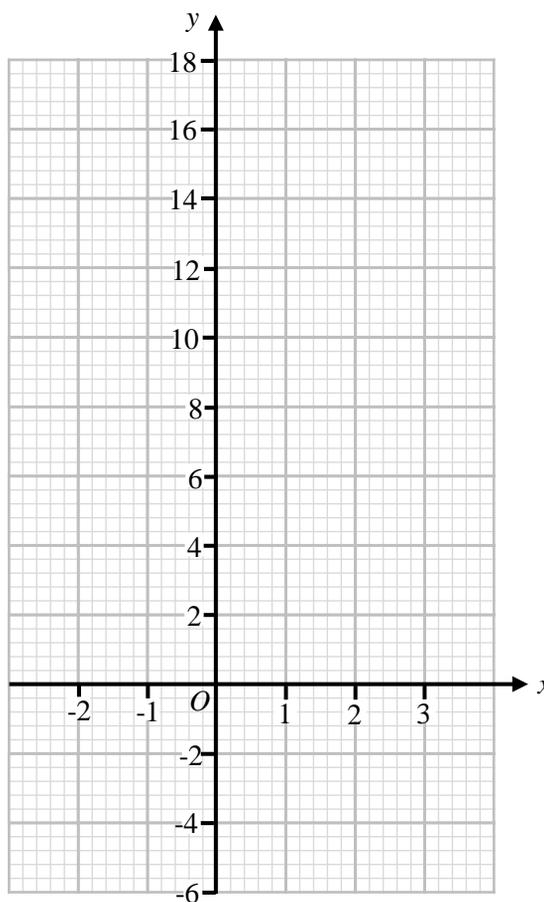


3 (a) Complete the table of values for  $y = x^2 + 5$

$x$	-2	-1	0	1	2	3
$y$			5	6	9	

(2)

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



(2)



(Total for Question 3 is 4 marks)

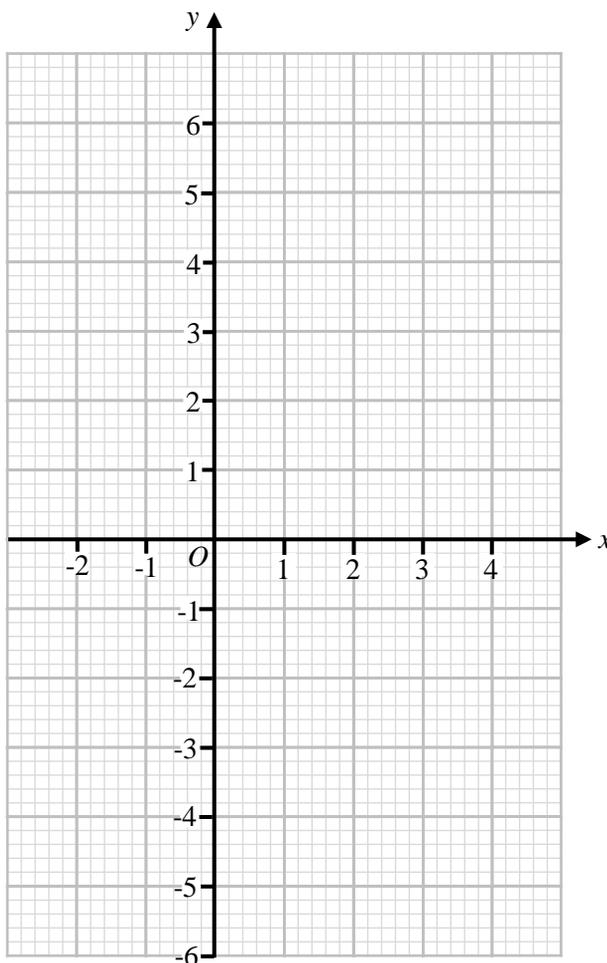


4 (a) Complete the table of values for  $y = x^2 - 2x - 3$

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

(2)

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



(2)



(Total for Question 4 is 4 marks)

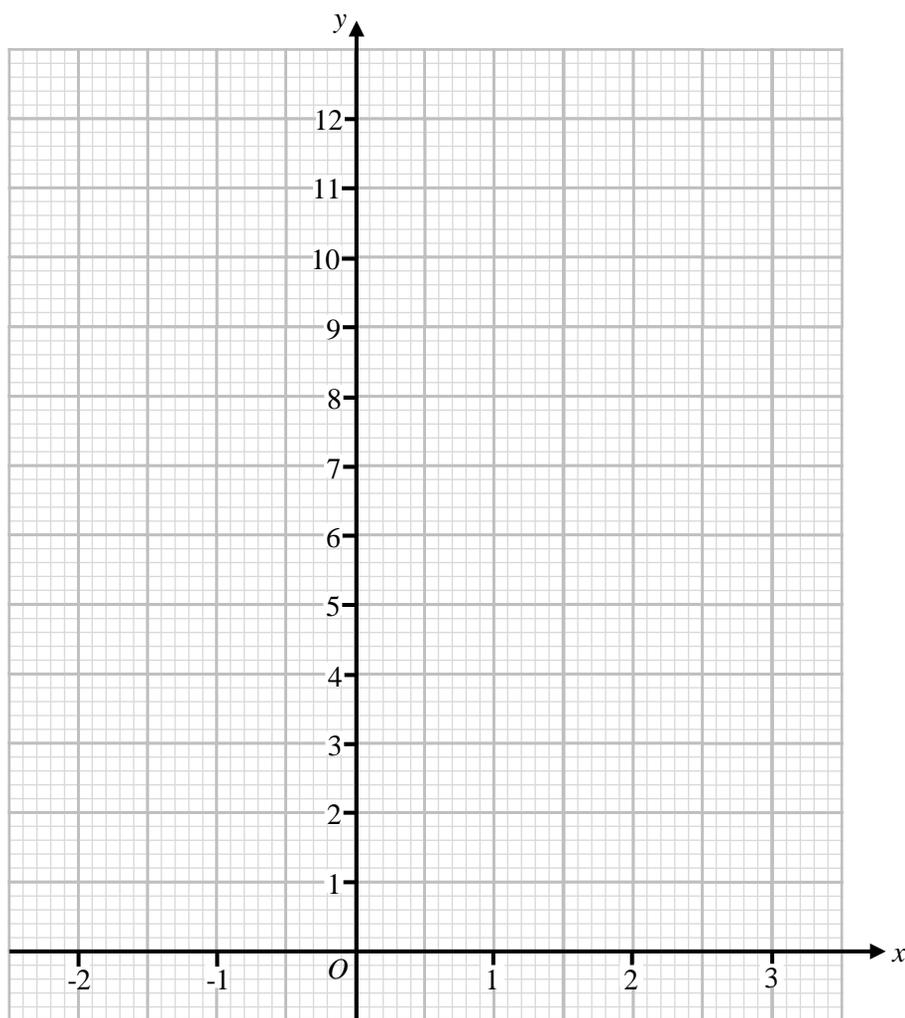


5 (a) Complete the table of values for  $y = x^2 - 3x + 2$

$x$	-2	-1	0	1	2	3
$y$	12			0		2

(2)

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



(2)



(Total for Question 5 is 4 marks)

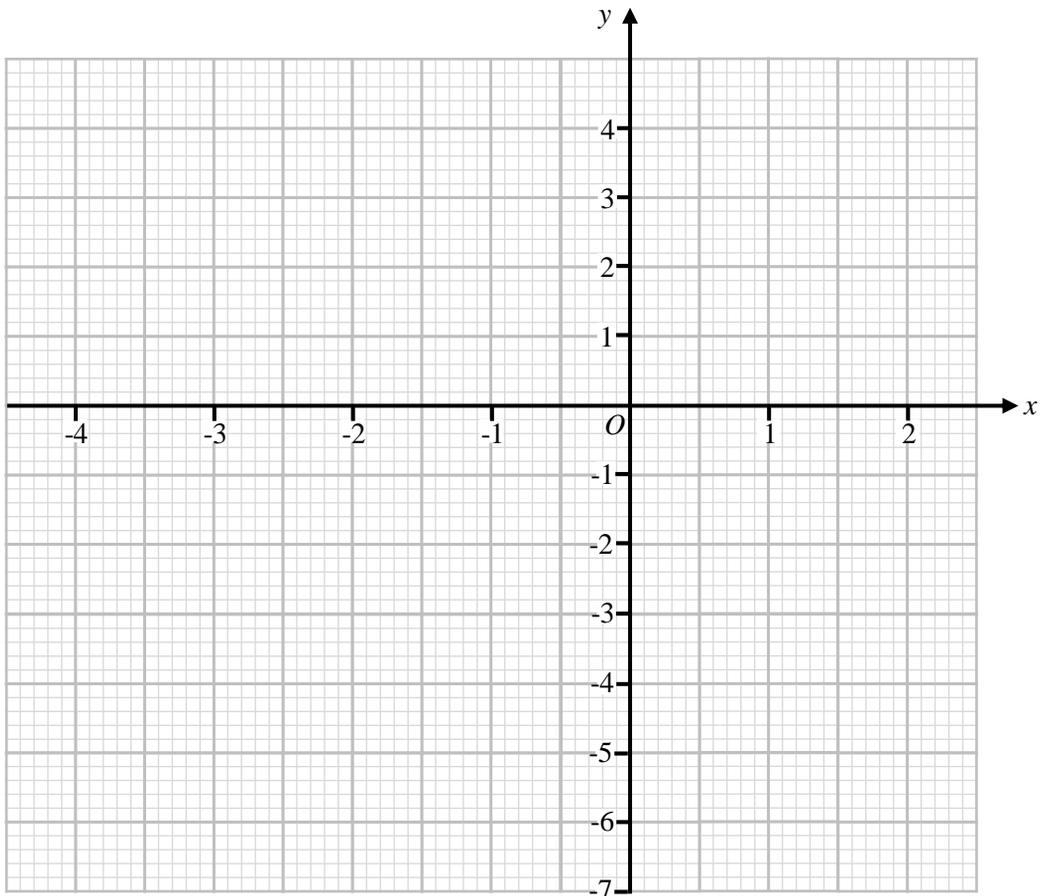


6 (a) Complete the table of values for  $y = x^2 + 2x - 5$

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

(2)

(b) On the grid, draw the graph of  $y = x^2 + 2x - 5$  for values of  $x$  from -4 to 2



(2)

(c) Use your graph to estimate the roots of the equation  $x^2 + 2x - 5 = 0$

(2)

(Total for Question 6 is 6 marks)

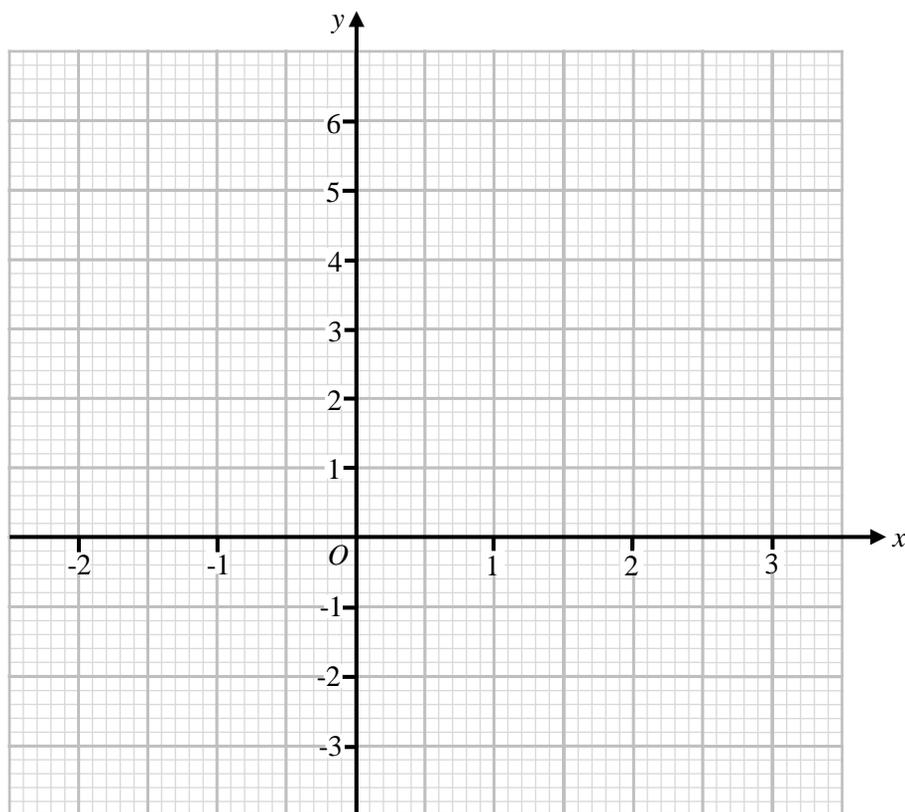


7 (a) Complete the table of values for  $y = x^2 - x - 1$

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

(2)

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



(2)

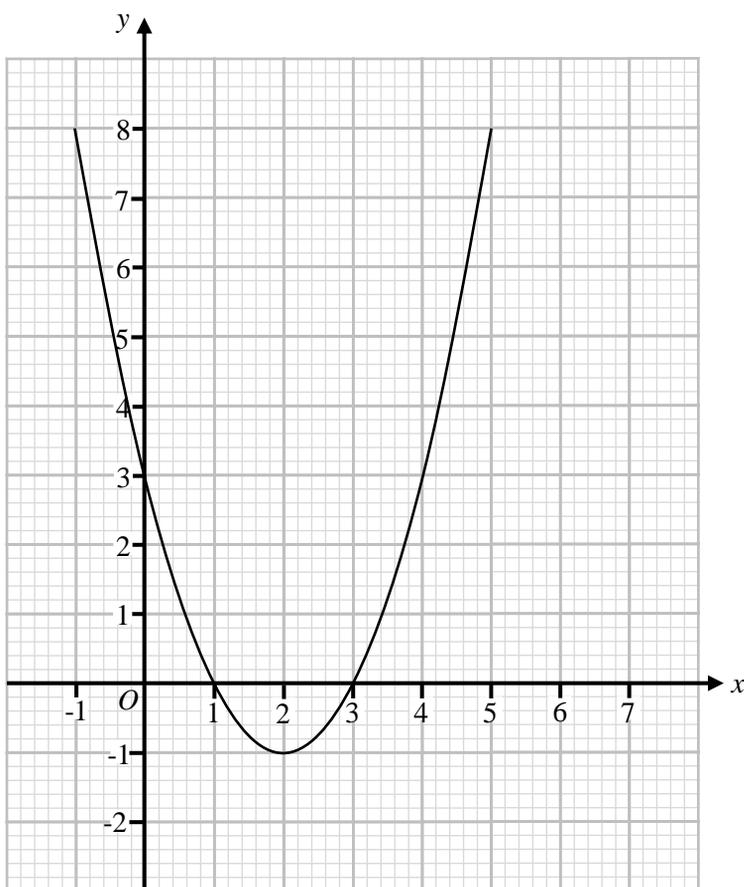
(c) Use your graph to estimate the roots of the equation  $x^2 - x - 1 = 0$

(2)

(Total for Question 7 is 6 marks)



8 Here is the graph of  $y = x^2 - 4x + 3$



(a) Use the graph to find the roots of the equation  $x^2 - 4x + 3 = 0$

..... (2)

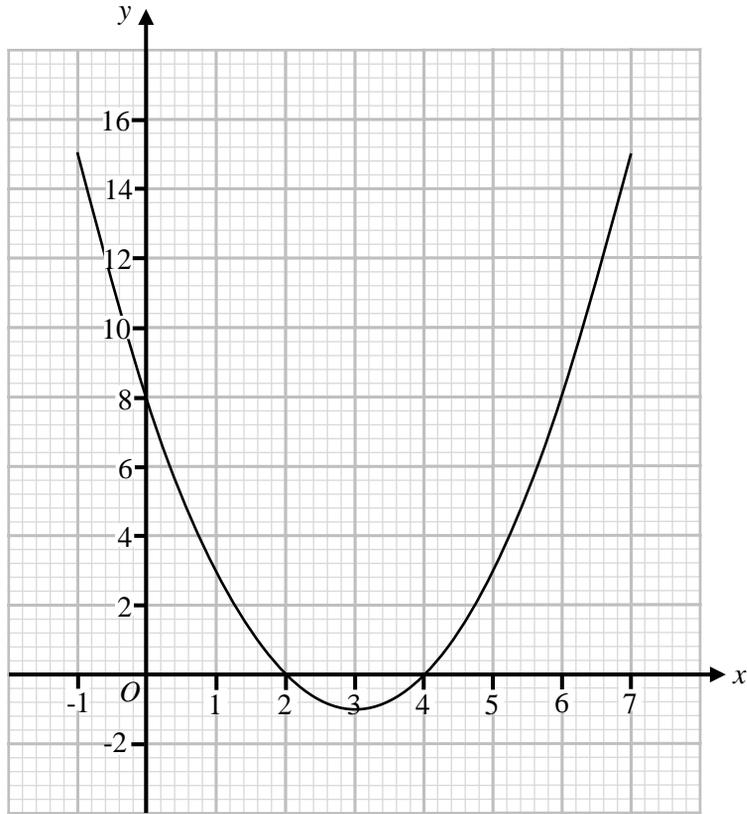
(b) Write down the coordinates of the turning point of the graph  $y = x^2 - 4x + 3$

(....., .....)  
(1)

(Total for Question 8 is 3 marks)



9 Here is the graph of  $y = x^2 - 6x + 8$



(a) Use the graph to find the roots of the equation  $x^2 - 6x + 8 = 0$

.....  
(2)

(b) Write down the coordinates of the turning point of the graph  $y = x^2 - 6x + 8$

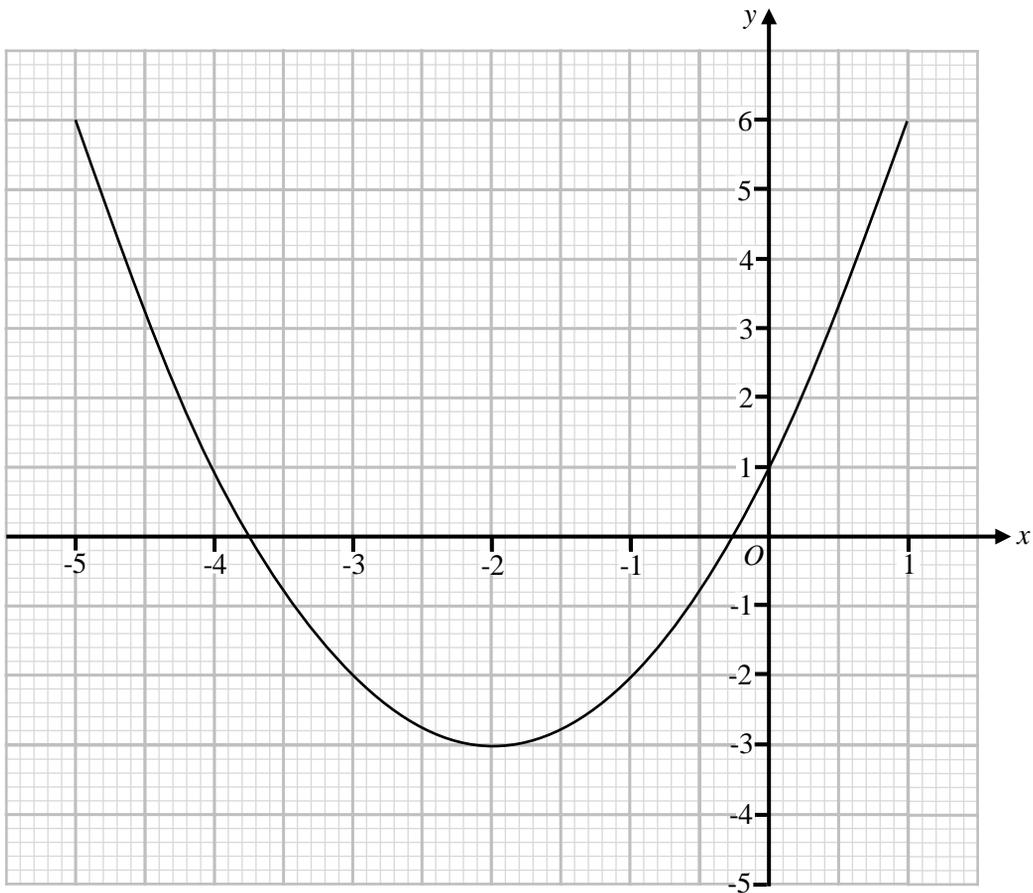
(....., .....)

(1)

(Total for Question 9 is 3 marks)



10 Here is the graph of  $y = x^2 + 4x + 1$



(a) Use the graph to find estimates for the roots of the equation  $x^2 + 4x + 1 = 0$

.....  
(2)

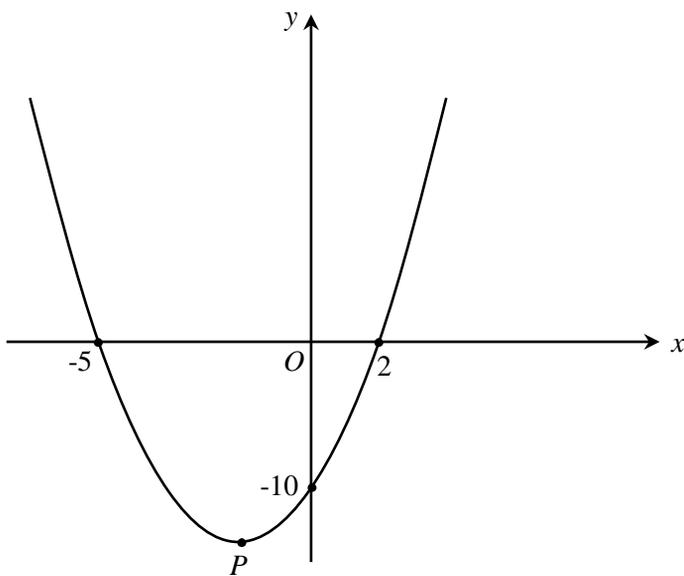
(b) Write down the equation of the line of symmetry of the graph  $y = x^2 + 4x + 1$

.....  
(1)

(Total for Question 10 is 3 marks)



11 Here is a sketch of the graph of  $y = x^2 + 3x - 10$



(a) Write down the roots of the equation  $x^2 + 3x - 10 = 0$

.....  
(1)

(b) Write down the y-intercept of the graph of  $y = x^2 + 4x + 1$

.....  
(1)

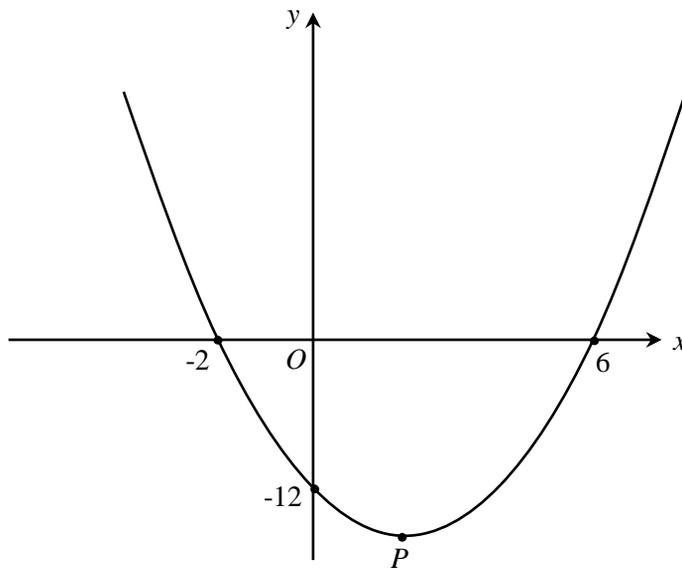
(c) Write down the x-coordinate of  $P$ , the turning point of the graph.

.....  
(1)

(Total for Question 11 is 3 marks)



12 Here is a sketch of the graph of  $y = x^2 - 4x - 12$



(a) Write down the roots of the equation  $x^2 - 4x - 12 = 0$

.....  
(1)

(b) Write down the y-intercept of the graph of  $y = x^2 - 4x - 12$

.....  
(1)

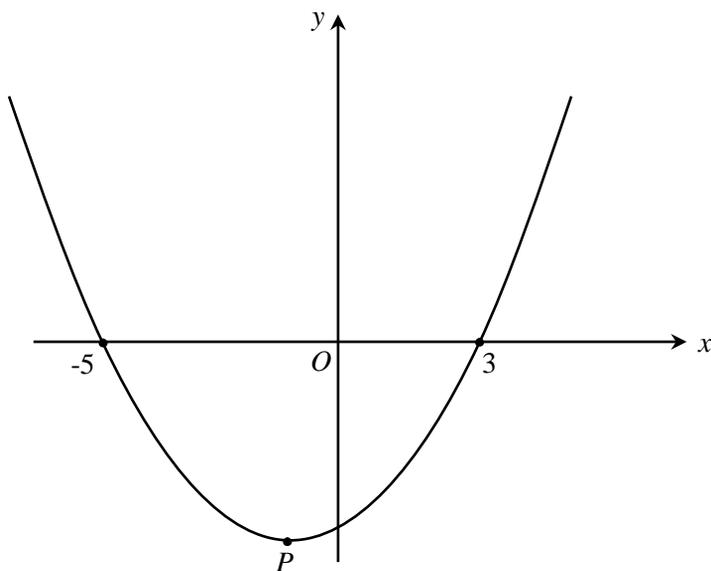
(c) Write down the equation of the line of symmetry of the graph.

.....  
(1)

(Total for Question 12 is 3 marks)



13 Here is a sketch of the graph of  $y = x^2 + 2x - 15$



(a) Write down the roots of the equation  $x^2 + 2x - 15 = 0$

.....  
(1)

(b) Write down the y-intercept of the graph of  $y = x^2 + 2x - 15$

.....  
(1)

(c) Work out the coordinates of  $P$ , the turning point of the curve.

(....., .....)  
(2)

(Total for Question 13 is 4 marks)

