Name:_____

GCSE (1 - 9) Drawing Quadratic Graphs	Solutions:

These questions are compiled from *released* Pearson Edexcel GCSE maths exam papers
They contain exam questions from up until the ***Summer 2023*** exam series
More recent exam papers do exist but are withheld for mock exams
As new exam papers are released these worksheets will gradually be updated
The ***most current*** version of these worksheets will always be available at: kennethstafford.co.uk
These worksheets were made using examq.co.uk

Question	Where the question appeared
1	Edexcel, GCSE, Autumn 2021, Paper 2F, Q24
2	Edexcel, GCSE, Autumn 2020, Paper 3F, Q28
3	Edexcel, GCSE, Summer 2019, Paper 1F, Q29
4	Edexcel, GCSE, Autumn 2018, Paper 3F, Q22
5	Edexcel, GCSE, Autumn 2018, Paper 2F, Q24
6	Edexcel, GCSE, Autumn 2017, Paper 1F, Q29
7	Edexcel, GCSE, Summer 2022, Paper 1F, Q28
8	Edexcel, GCSE, Summer 2023, Paper 3F, Q26
9	Edexcel, GCSE, November 2022, Paper 2F, Q24
10	Edexcel, GCSE, Summer 2022, Paper 1F, Q28

Drawing Quadratic Graphs (Questions from Past Papers)

1

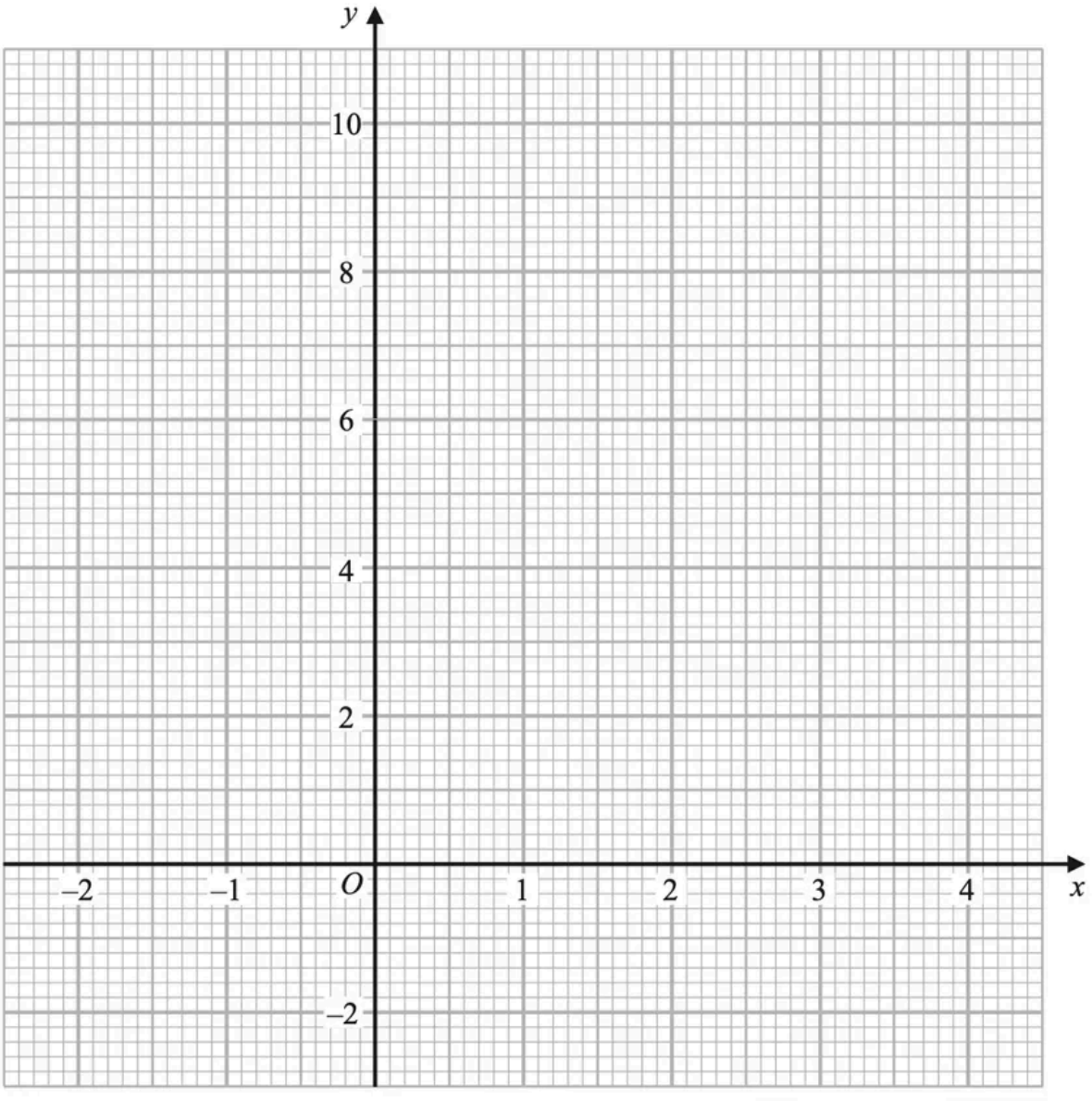
(a) Complete the table of values for $y = x^2 - 2x + 2$

x	–2	–1	0	1	2	3	4
y	10		2			5	

(2)

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

(2)



(c) Use your graph to find estimates of the solutions of the equation $x^2 - 2x + 2 = 4$

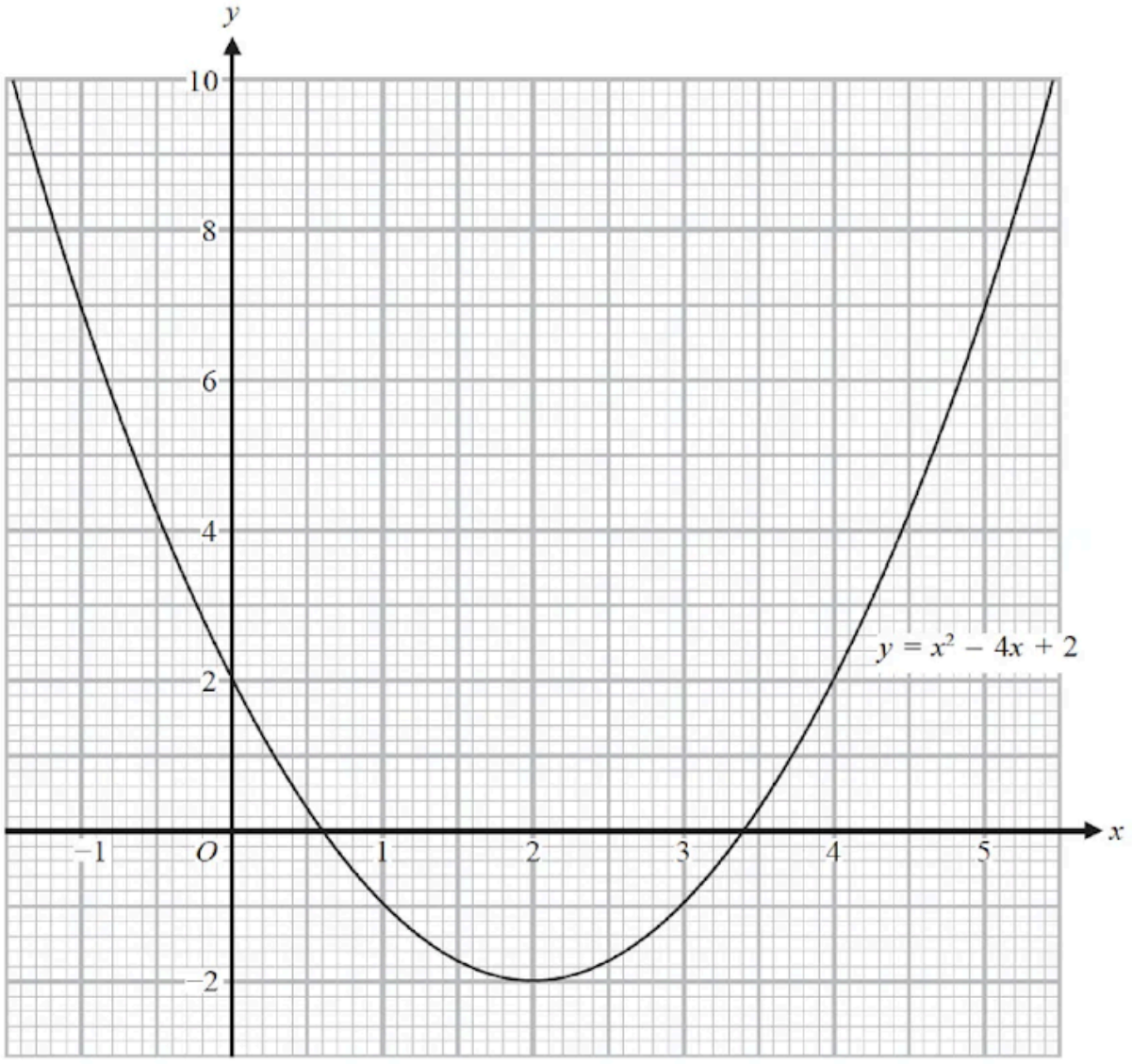
.....

(2)

(Total for Question 24 is 6 marks)

[Edexcel, GCSE, Autumn 2021, Paper 2F, Q24]

2



(b) Use this graph to find estimates for the solutions of the quadratic equation $x^2 - 4x + 2 = 0$

.....

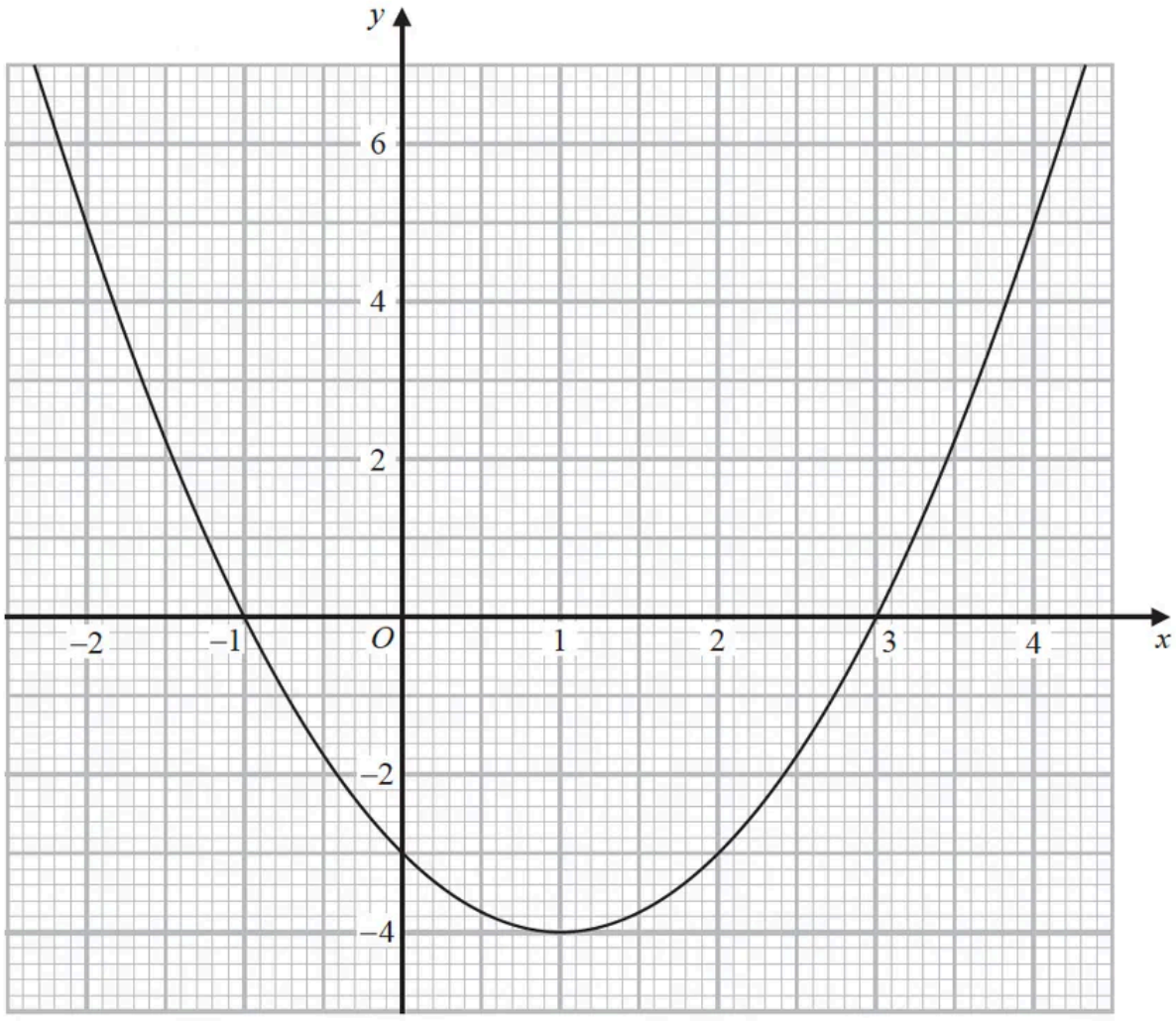
(2)

(Total for Question 28 is 3 marks)

[Edexcel, GCSE, Autumn 2020, Paper 3F, Q28]

3

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



(a) Write down the coordinates of the turning point on the graph of $y = x^2 - 2x - 3$

(..... , ...)

(1)

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

.....

(2)

(Total for Question 29 is 3 marks)

[Edexcel, GCSE, Summer 2019, Paper 1F, Q29]

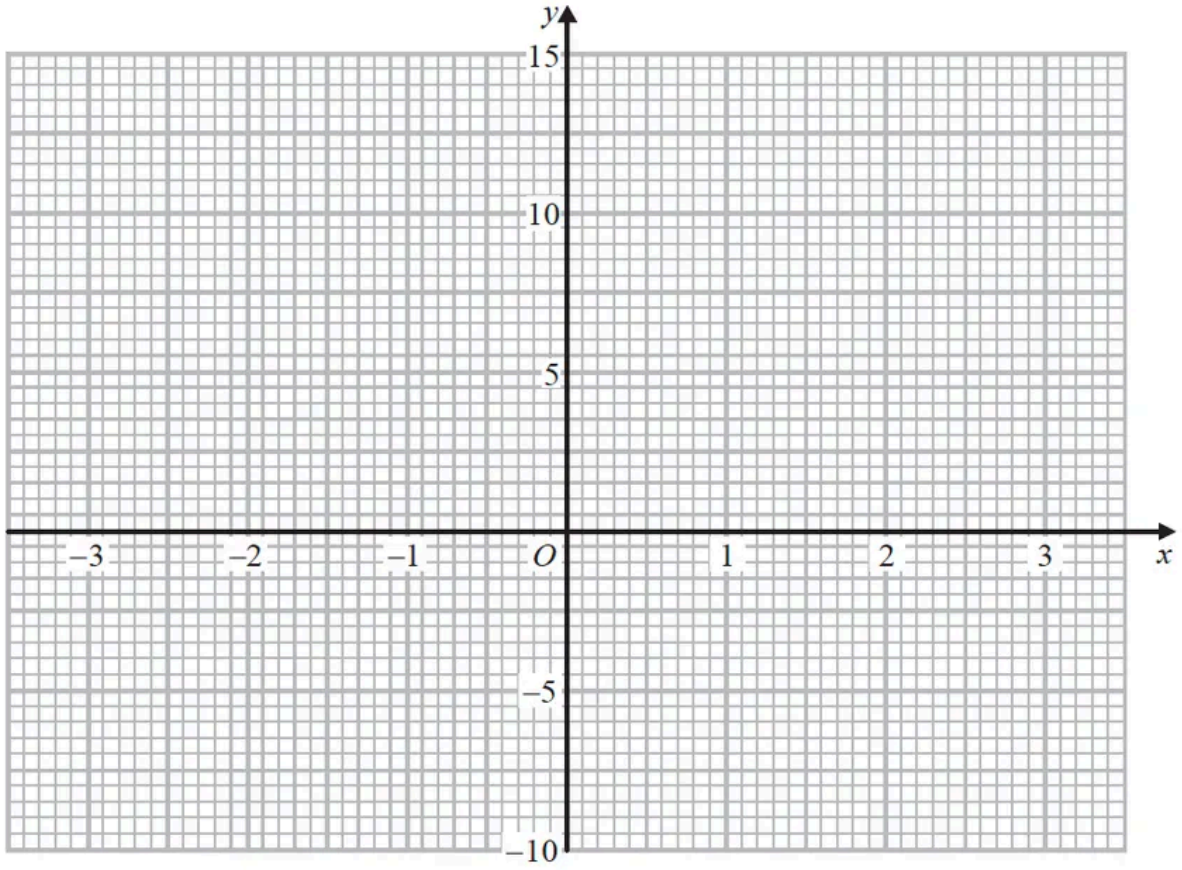
4

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

x	–3	–2	–1	0	1	2	3
y		–2	–4		–2		

(2)

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



(2)

(c) Use the graph to estimate a solution to $x^2 + x - 4 = 0$

.....

(1)

(Total for Question 22 is 5 marks)

[Edexcel, GCSE, Autumn 2018, Paper 3F, Q22]

5

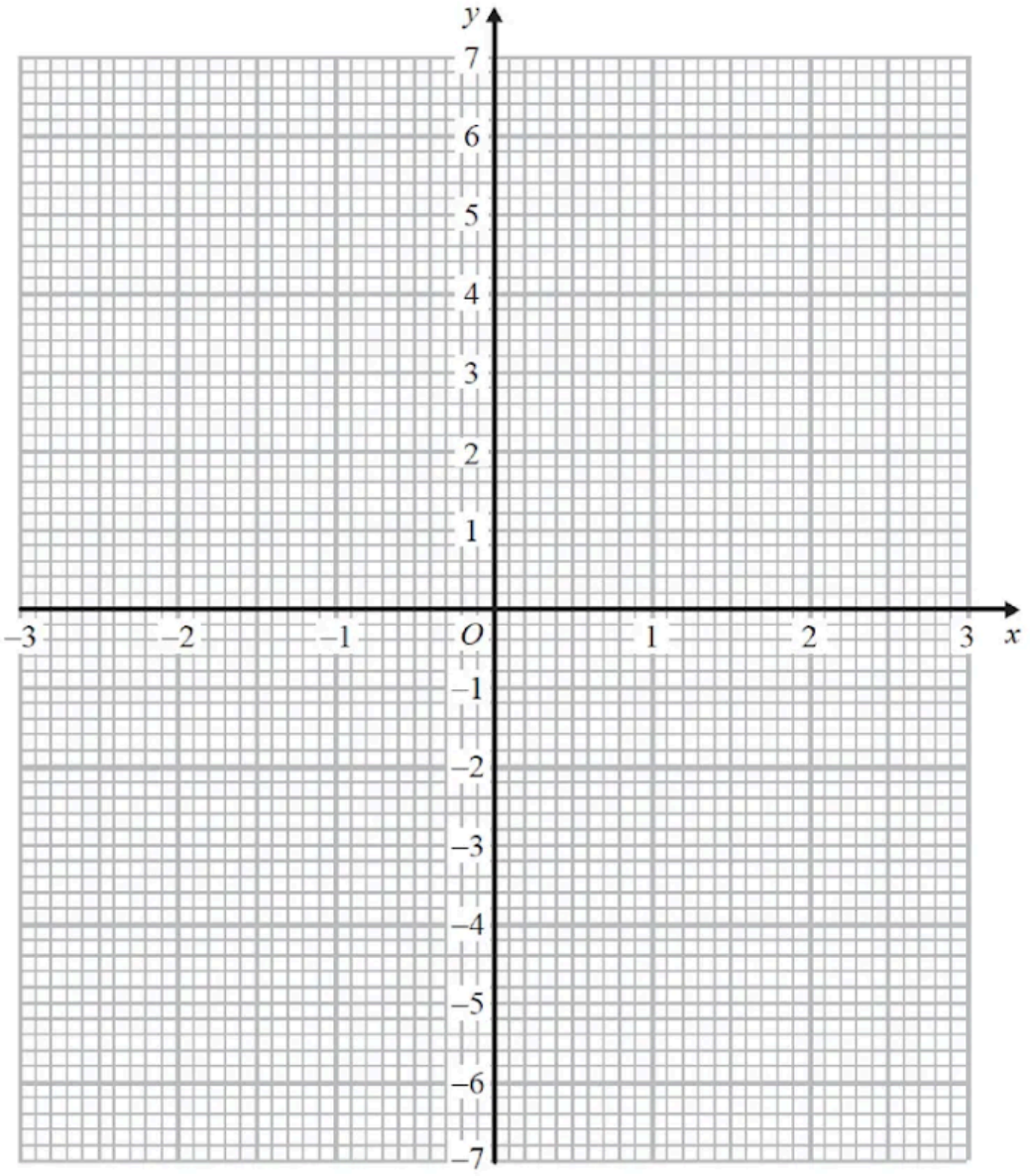
(a) Complete the table of values for $y = x^2 - x - 6$

x	–3	–2	–1	0	1	2	3
y	6			– 6			

(2)

(b) On the grid, draw the graph of $y = x^2 - x - 6$ for values of x from –3 to 3

(2)



(c) Use your graph to find estimates of the solutions to the equation $x^2 - x - 6 = -2$

.....

(2)

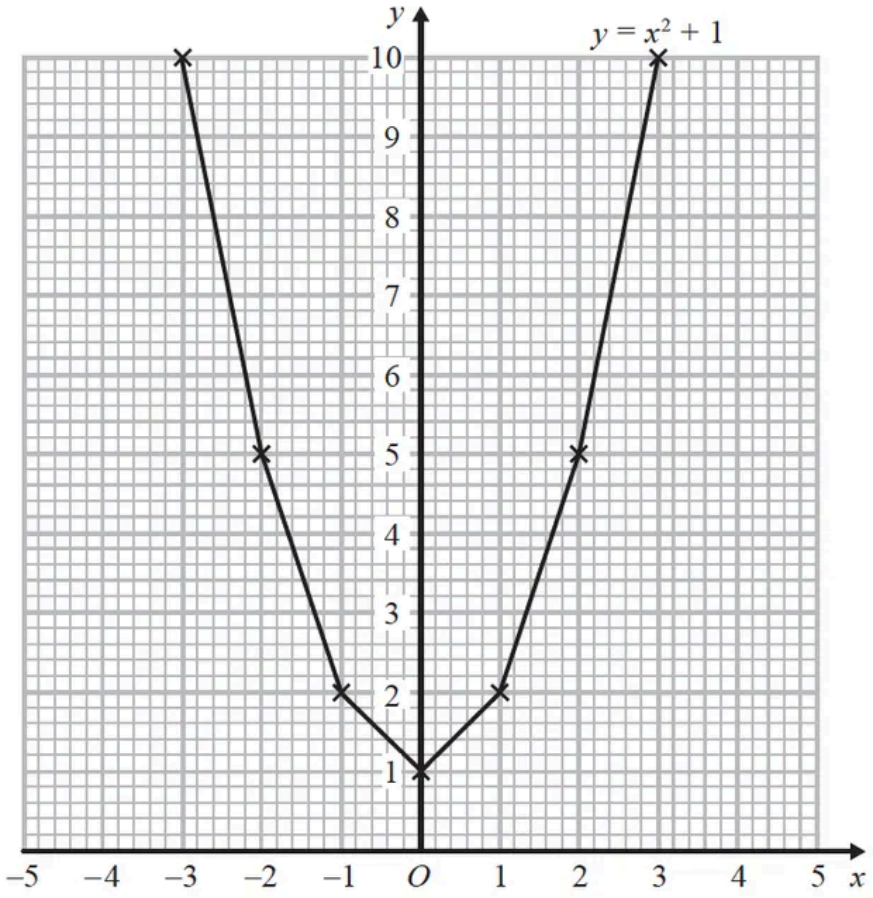
(Total for Question 24 is 6 marks)

[Edexcel, GCSE, Autumn 2018, Paper 2F, Q24]

6

Brogan needs to draw the graph of $y = x^2 + 1$

Here is her graph.



Write down one thing that is wrong with Brogan's graph.

.....

.....

(Total for Question 29 is 1 mark)

[Edexcel, GCSE, Autumn 2017, Paper 1F, Q29]

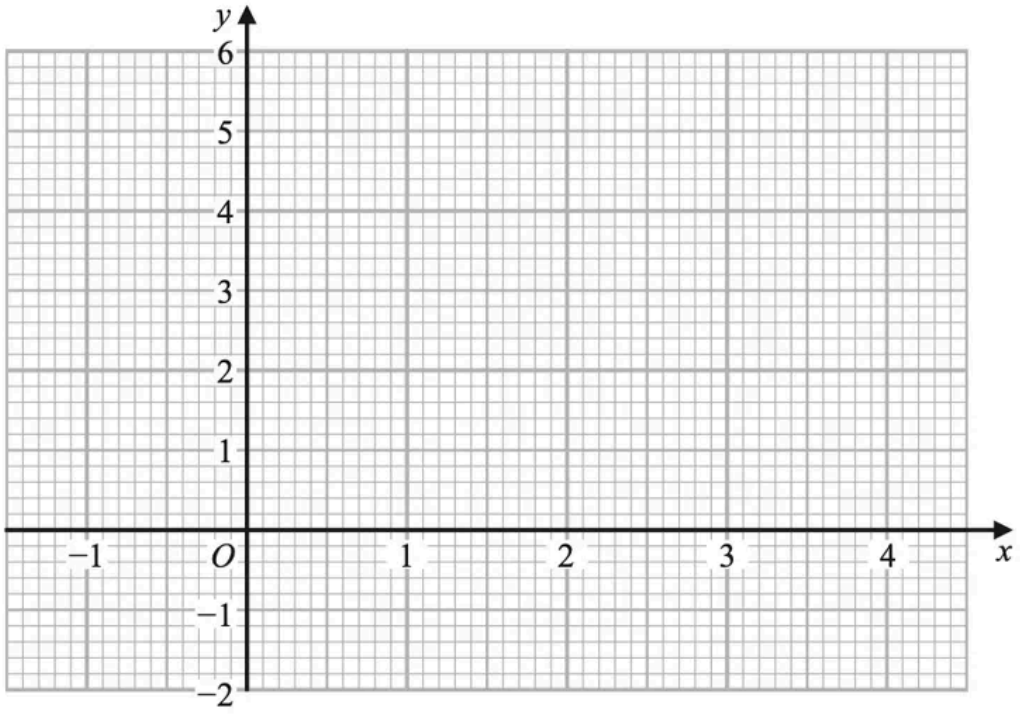
7

(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 $x^2 - 3x + 1 = 0$

.....

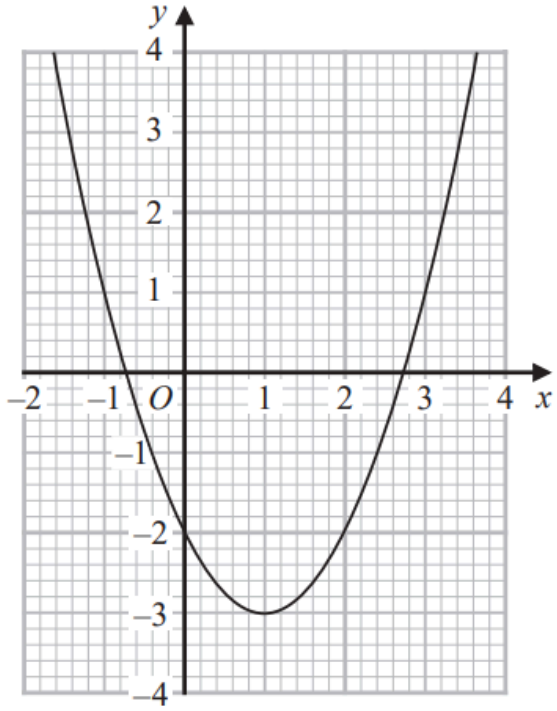
(2)

(Total for Question 28 is 6 marks)

[Edexcel, GCSE, Summer 2022, Paper 1F, Q28]

8

Here is the graph of $y = x^2 - 2x - 2$



(a) Write down the coordinates of the turning point on the graph of $y = x^2 - 2x - 2$

(..... , ...)

(1)

(b) Write down an estimate for one of the roots of $x^2 - 2x - 2 = 0$

.....

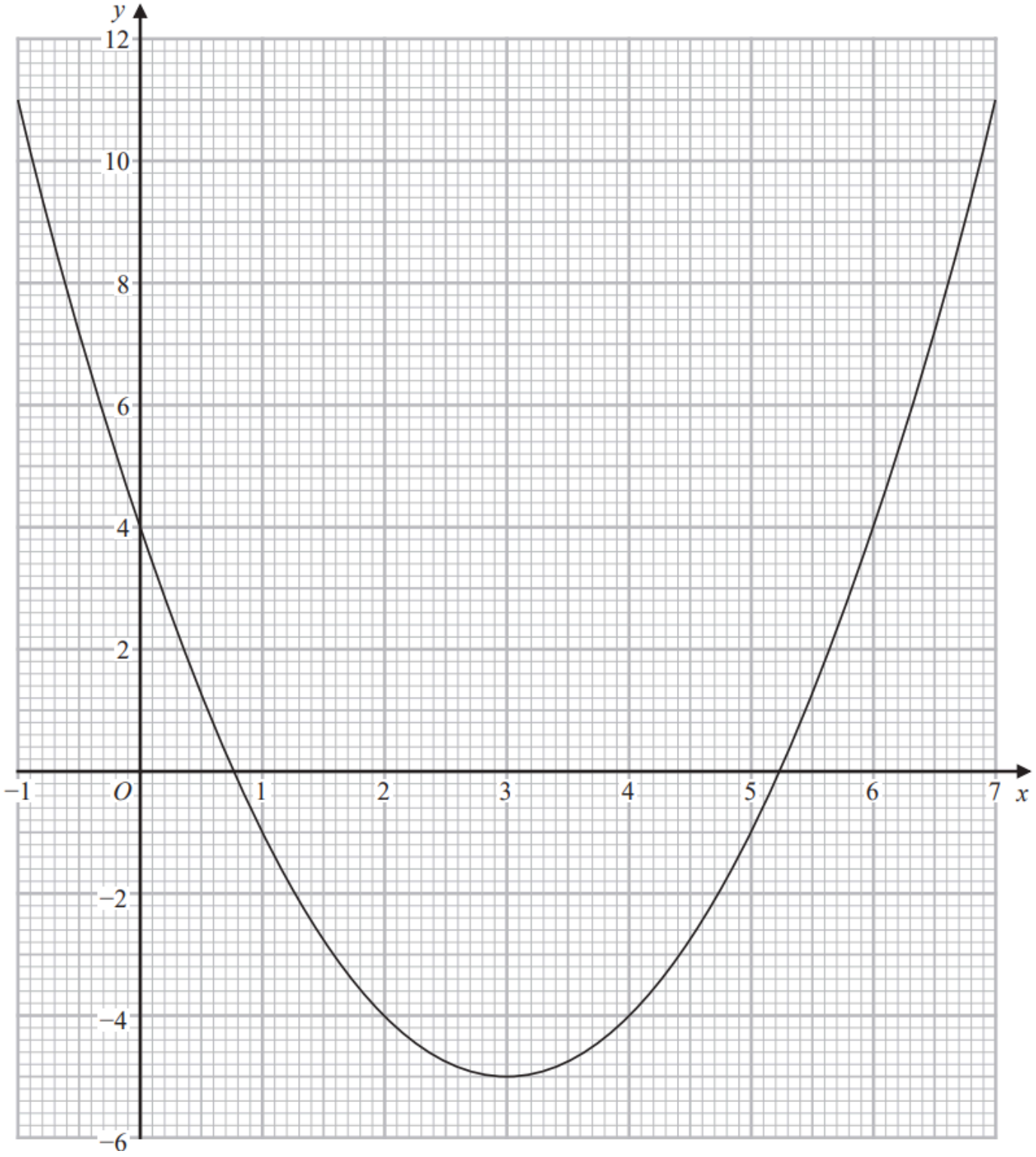
(1)

(Total for Question 26 is 2 marks)

[Edexcel, GCSE, Summer 2023, Paper 3F, Q26]

9

Here is the graph of $y = x^2 - 6x + 4$



(a) Write down the y intercept of the graph of $y = x^2 - 6x + 4$

.....

(1)

(b) Write down the coordinates of the turning point of the graph of $y = x^2 - 6x + 4$

(..... , ...)

(1)

(c) Use the graph to find estimates for the roots of $x^2 - 6x + 4 = 0$

.....

(2)

(Total for Question 24 is 4 marks)

[Edexcel, GCSE, November 2022, Paper 2F, Q24]

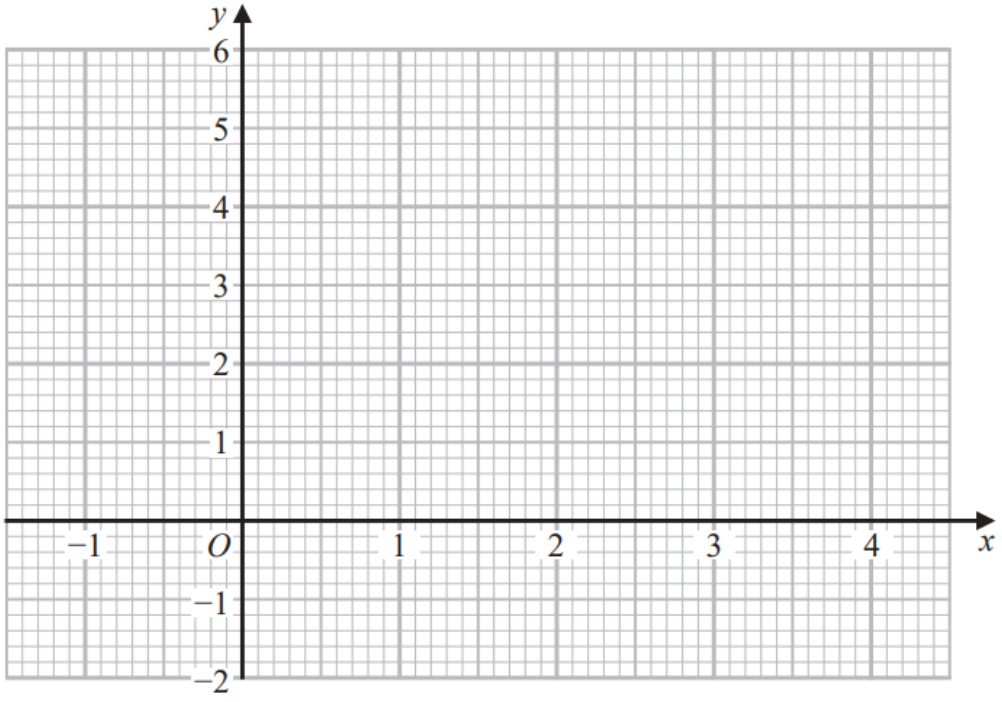
10

(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)

(Total for Question 28 is 6 marks)

[Edexcel, GCSE, Summer 2022, Paper 1F, Q28]