Name:

Exam Style Questions

Drawing Quadratics

Corbettmaths

Equipment needed: Ruler, Pencil, Calculator and Pen

Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Video Tutorial

www.corbettmaths.com/contents

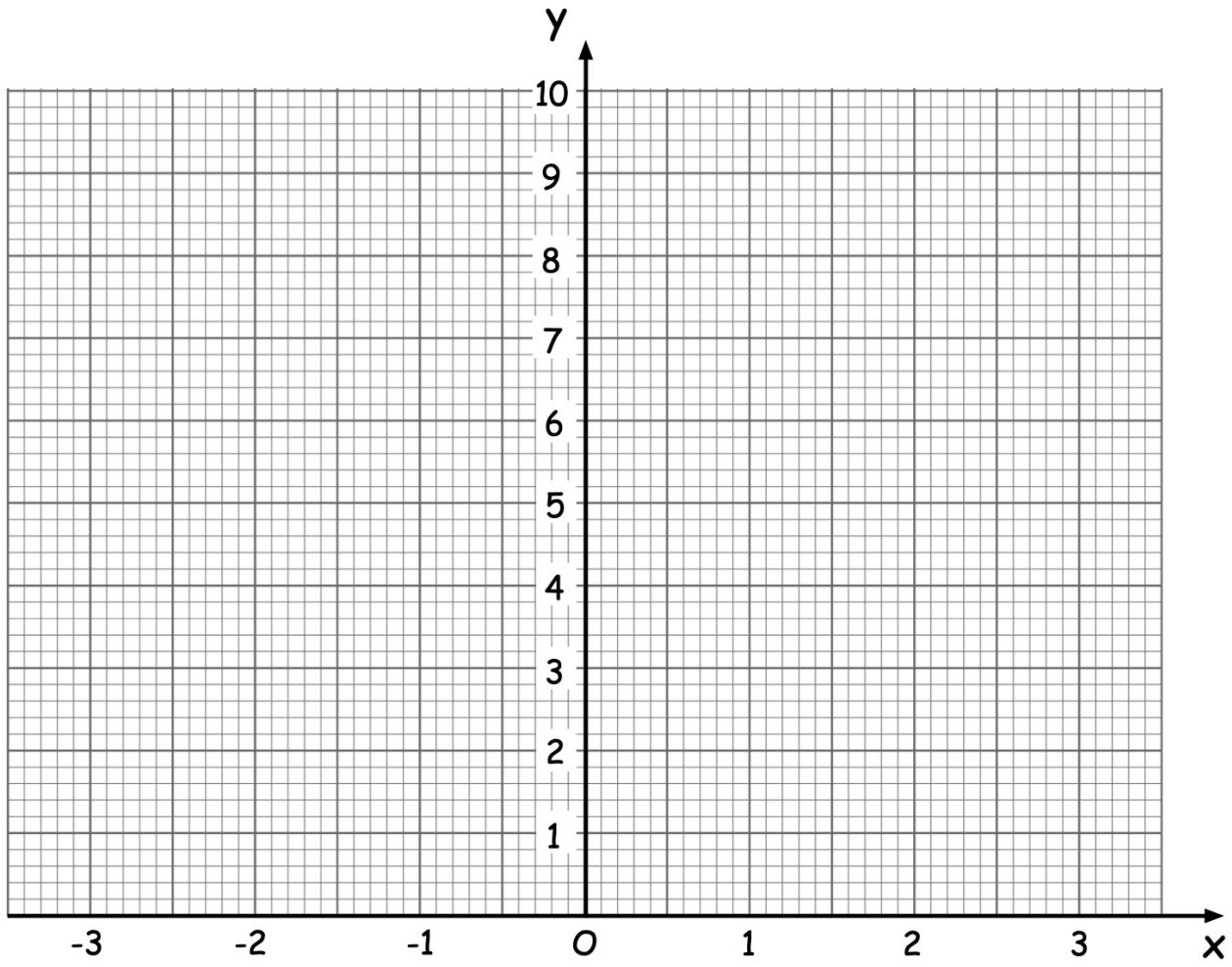
Video 264

Answers and Video Solutions

1. The table shows information about some points that lie on the graph $y = x^2$

x	-3	-2	-1	0	1	2	3
y	9	4	1	0	1	4	9

Draw the graph of $y = x^2$ for the values of x from -3 to 3



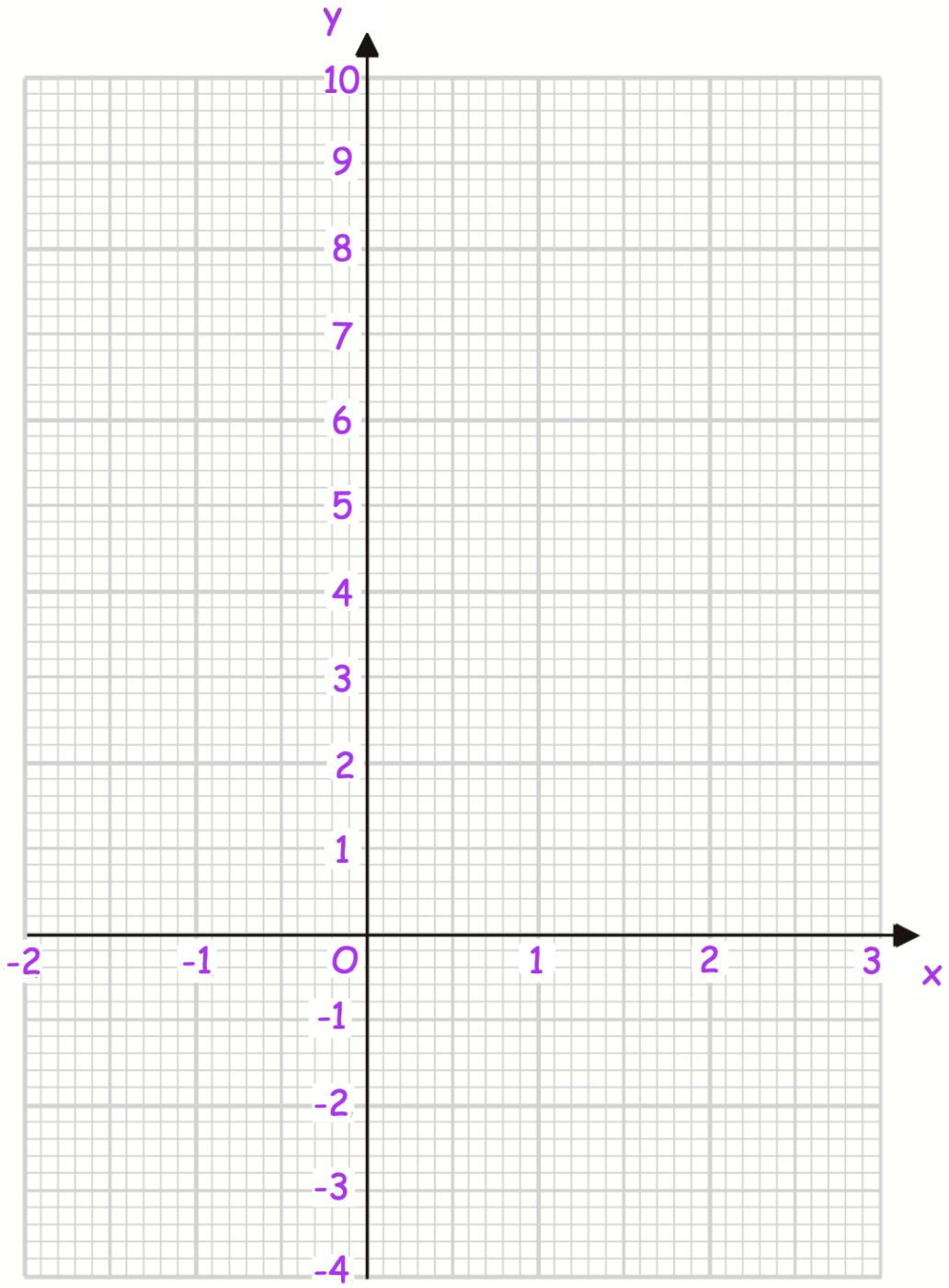
(2)

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

x	-2	-1	0	1	2	3
y	3		-1		3	

(2)

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



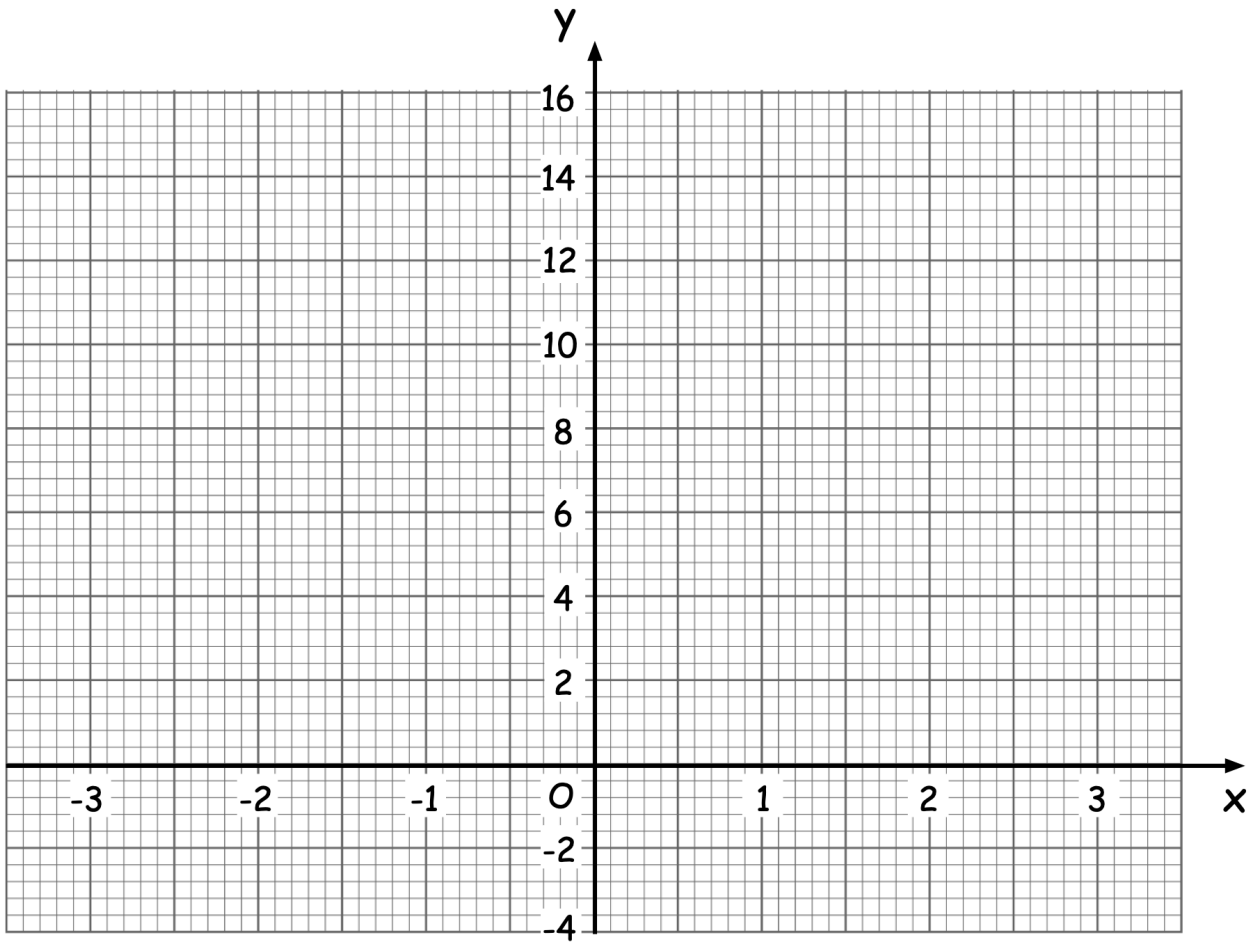
(2)

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

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

(2)

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



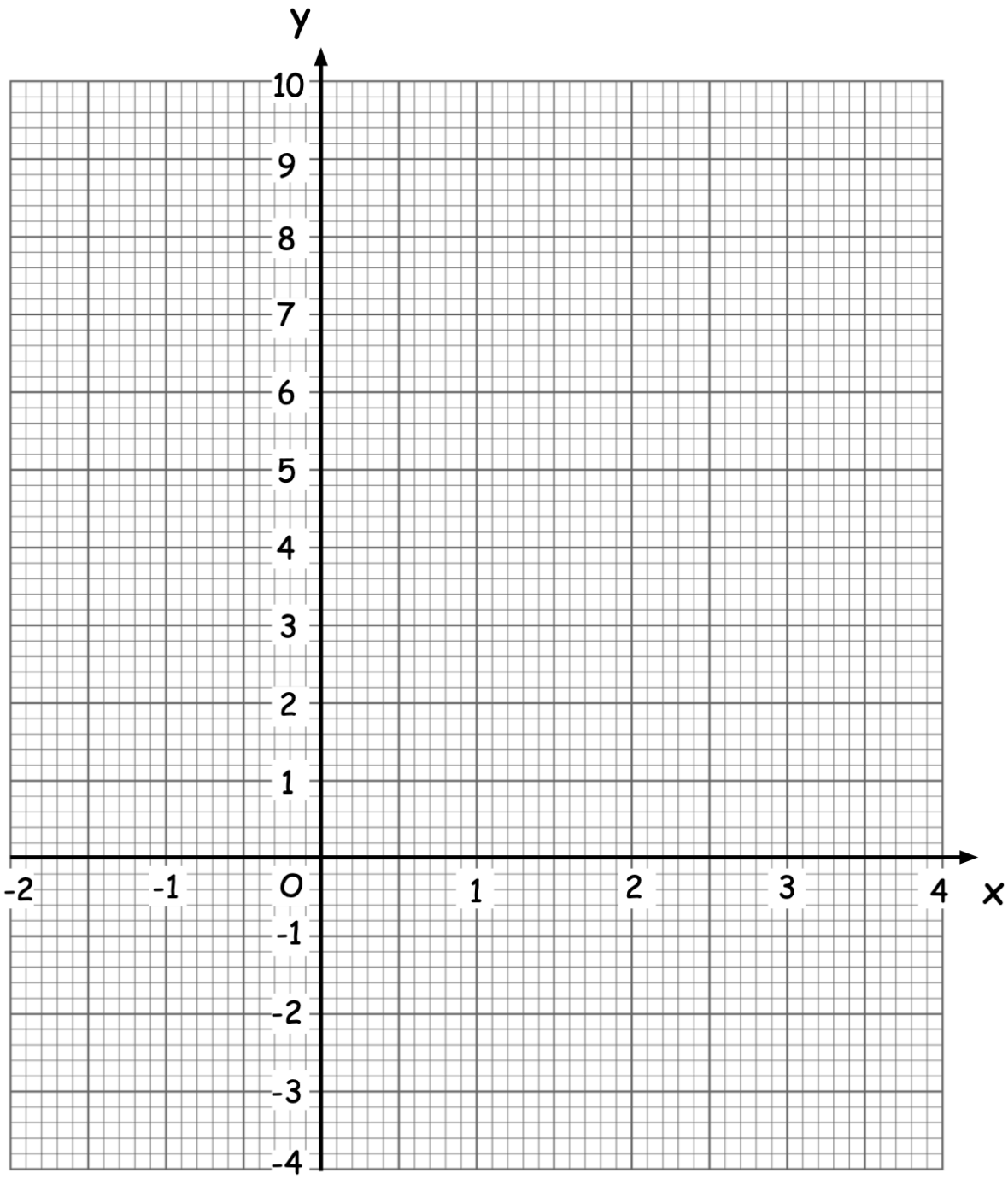
(2)

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

x	-2	-1	0	1	2	3	4
y	10		0	-2		0	

(2)

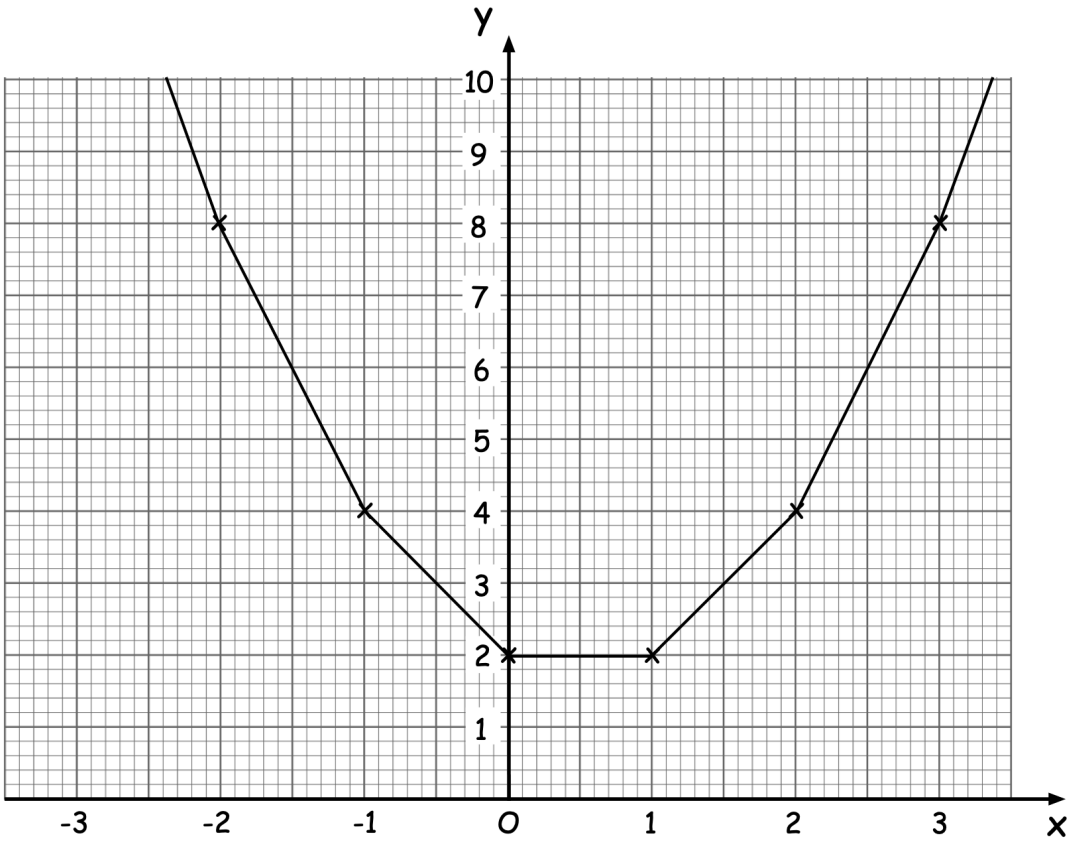
(b) Draw the graph of $y = x^2 - 3x$ for the values of x from -2 to 4



(2)

5. Adam wants to draw the graph of $y = x^2 - x + 2$

He drew this graph.



Write down two criticisms of Adam's graph.

Criticism 1

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Criticism 2

……

……

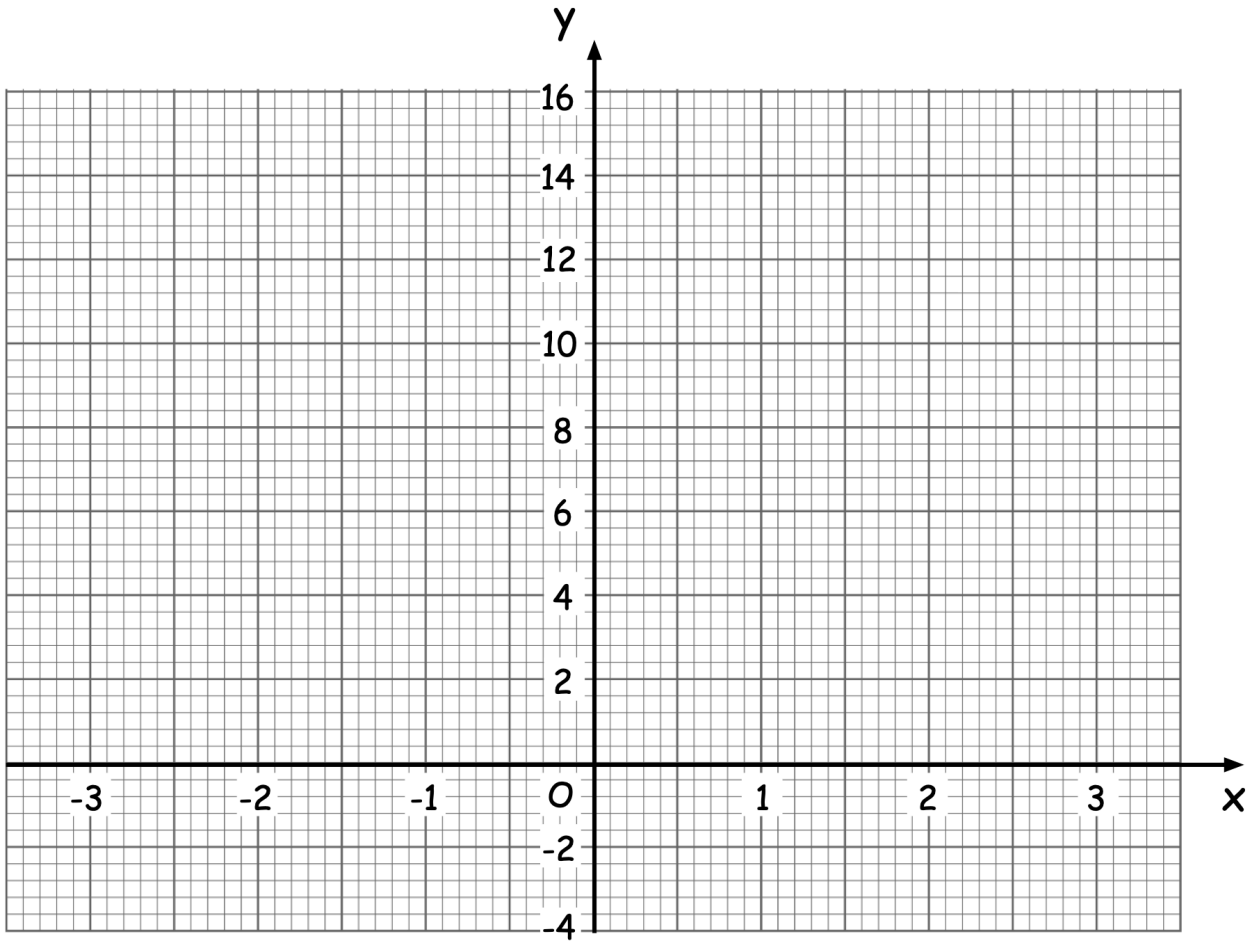
(2)

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

x	-3	-2	-1	0	1	2	3
y							

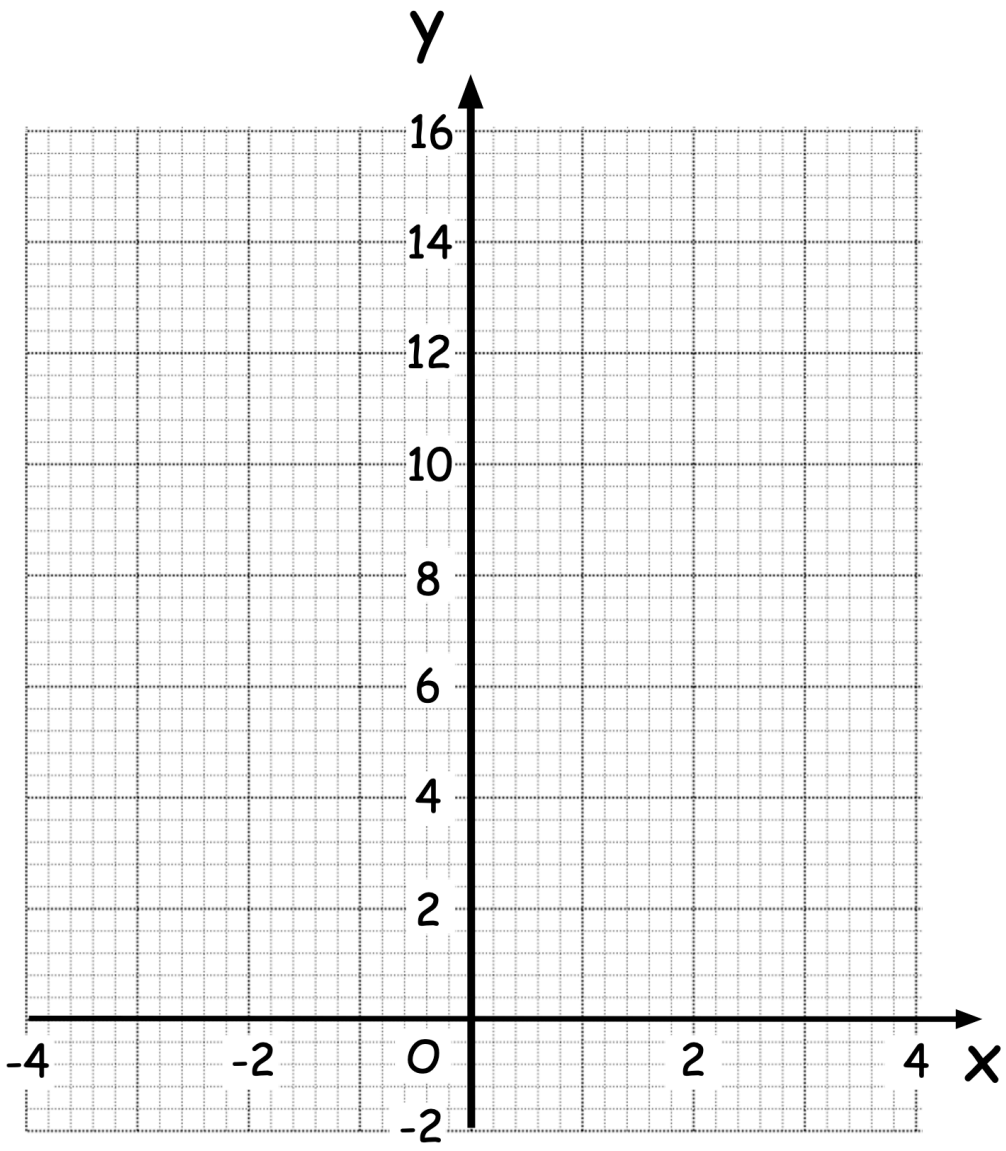
(2)

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



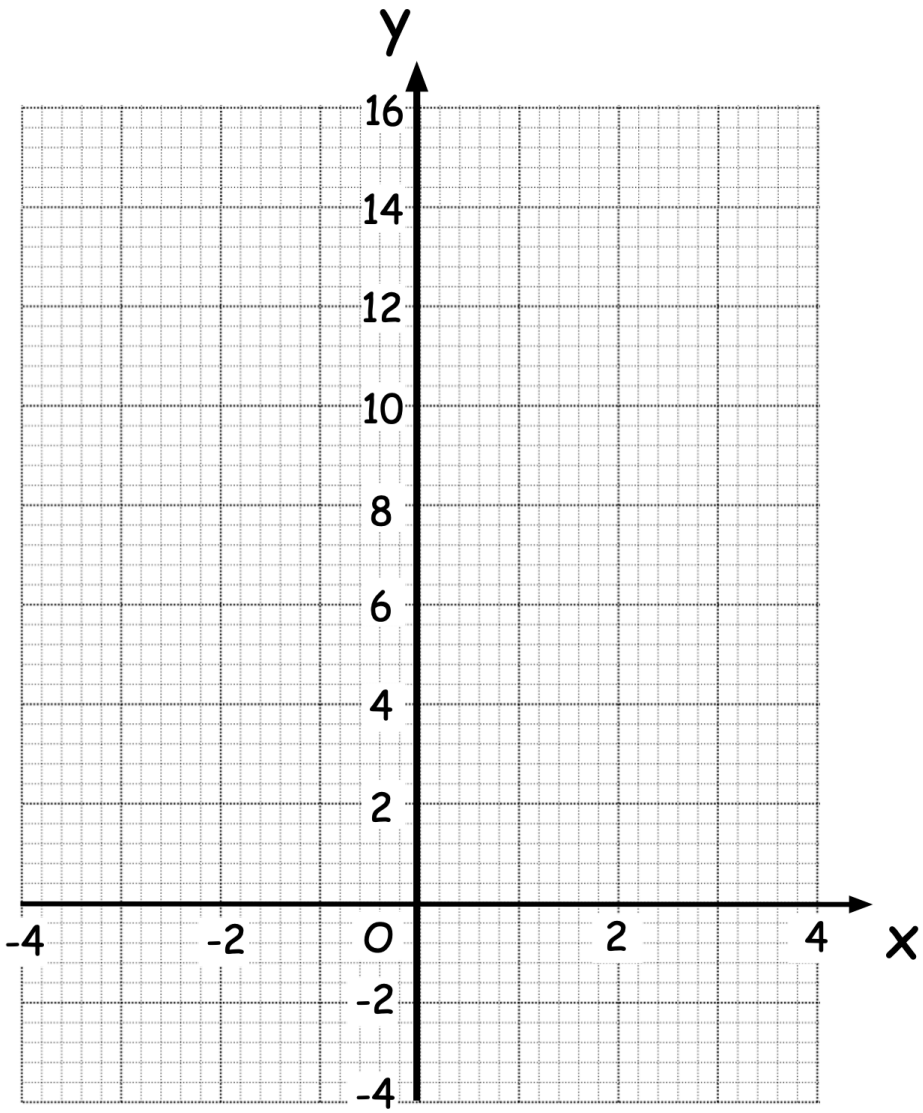
(2)

7. Draw the graph of $y = x^2 + x + 2$ for the values of x from -3 to 3



(4)

8. (a) Draw the graph of $y = x^2 + 2x - 2$ for the values of x from -3 to 3



(4)

(b) Write down the coordinates of the minimum point of $y = x^2 + 2x - 1$

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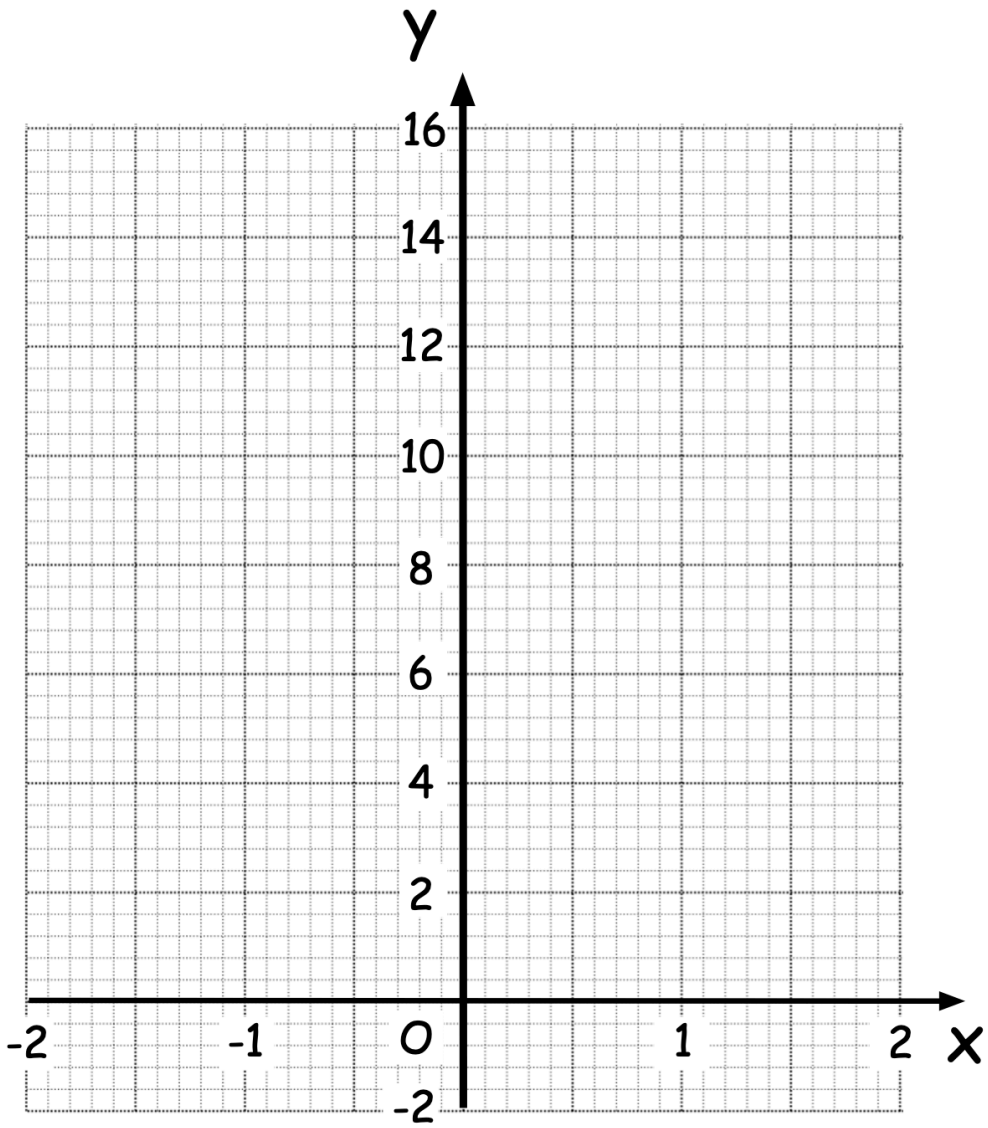
(1)

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

x	-2	-1	0	1	2
y	13		1	4	

(2)

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



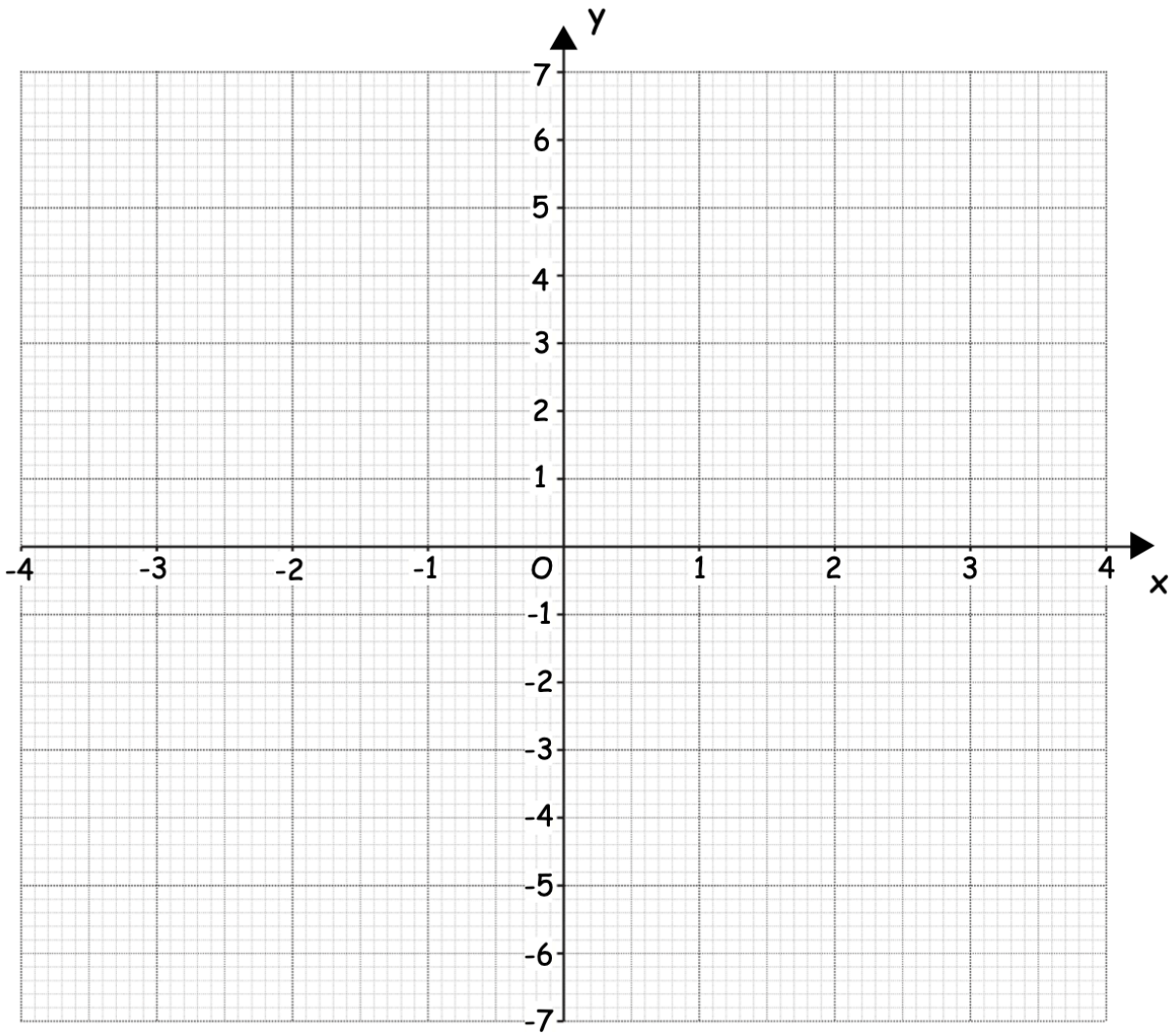
(2)

10. (a) Complete the table for the graph $y = 4 - x^2$

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

(2)

(b) Hence draw the graph on the grid.



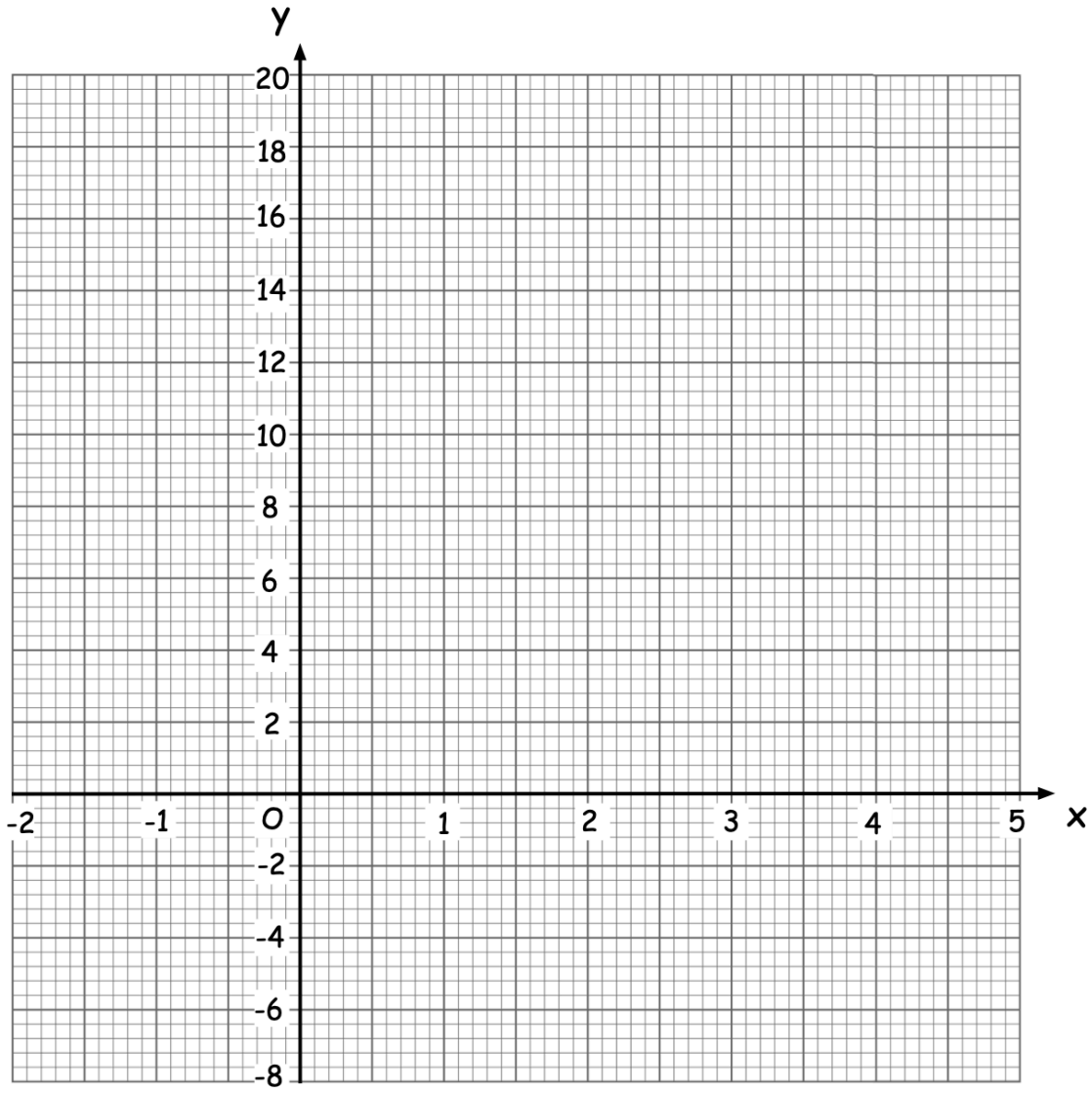
(2)

11. (a) Complete the table of values for $y = x^2 - 5x + 4$

x	-2	-1	0	1	2	3	4
y		10					0

(2)

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



(2)

(c) Write down the equation of the line of symmetry of $y = x^2 - 5x + 4$

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(1)

12. Circle the point that does **not** lie on the graph with equation $y = x^2 - 5x + 3$

$(-5, 53)$ $(-1, 9)$ $(0, 2)$ $(2, -3)$

(1)

13. Circle the point that lies on the graph with equation $y = 2x^2 + x - 1$

$(-2, -11)$ $(1, 4)$ $(2, 7)$ $(3, 20)$

(1)

14. The graph of $y = x^2 + 6x$ is drawn.

The x-coordinate of a point on the graph is -2

Write down the coordinates of the point.

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(2)

15. The graph of $y = x^2 + x + 7$ is drawn.

The y-coordinates of two points on the graph are equal to 49

Write down the coordinates of the two points.

..... and .....

(3)