

Name: _____

Exam Style Questions

Cubic Graphs



Equipment needed: Ruler, Calculator, Pencil 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

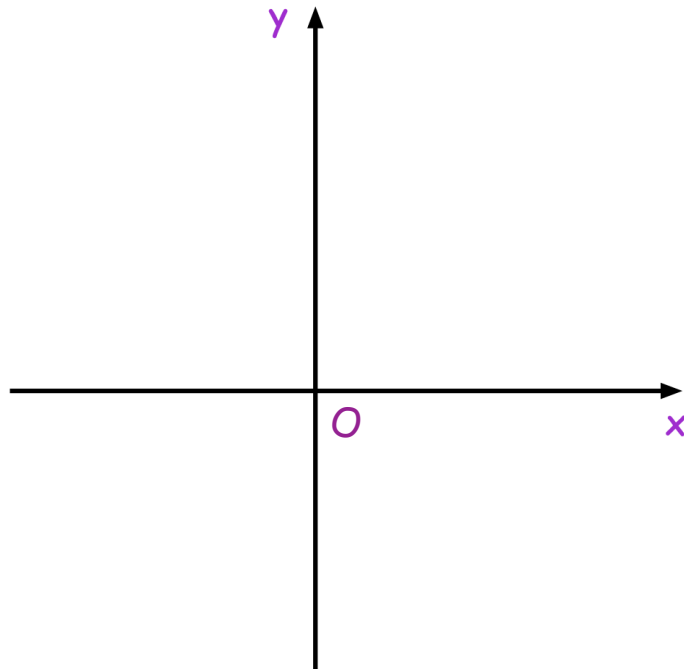
Video 344



Answers and Video Solutions



1. Sketch the graph of $y = x^3$



(2)

2. Circle the coordinates of the point that lies on the graph of $y = x^3$



$(-2, 8)$

$(0, 1)$

$(3, 9)$

$(4, 64)$

(1)

3. The x-coordinate of a point that lies on the graph of $y = x^3$ is -3



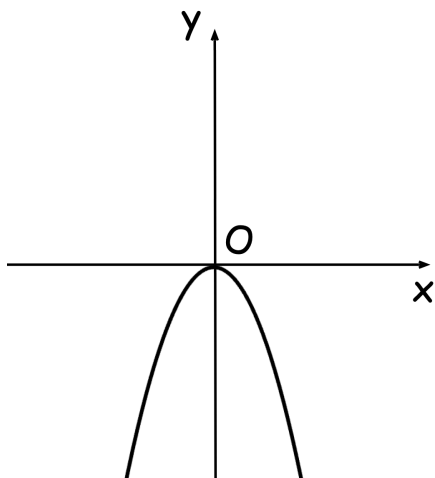
Write down the y-coordinate of the point.

.....
(1)

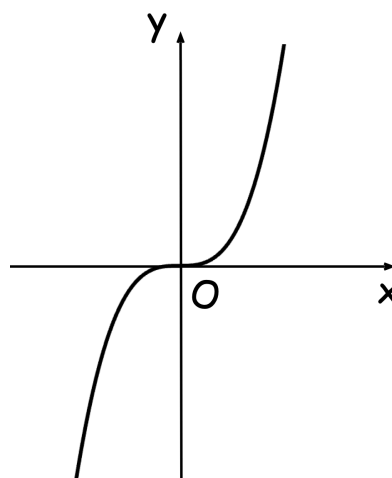
4. Shown below are the sketches of 4 graphs.



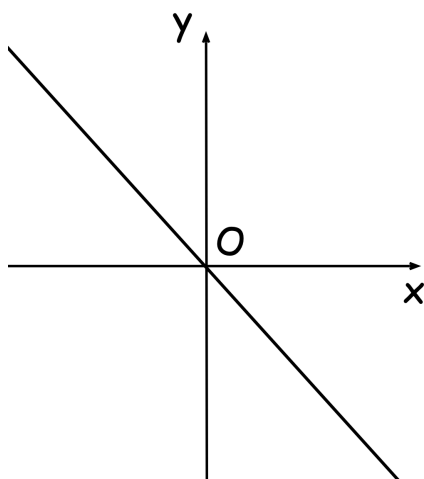
Graph 1



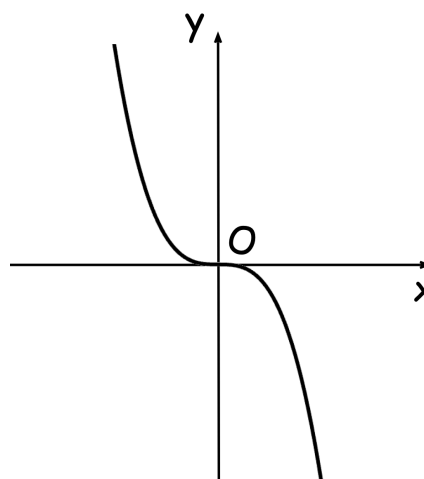
Graph 2



Graph 3



Graph 4



(a) Write down which graph is a sketch of $y = x^3$

Graph
(1)

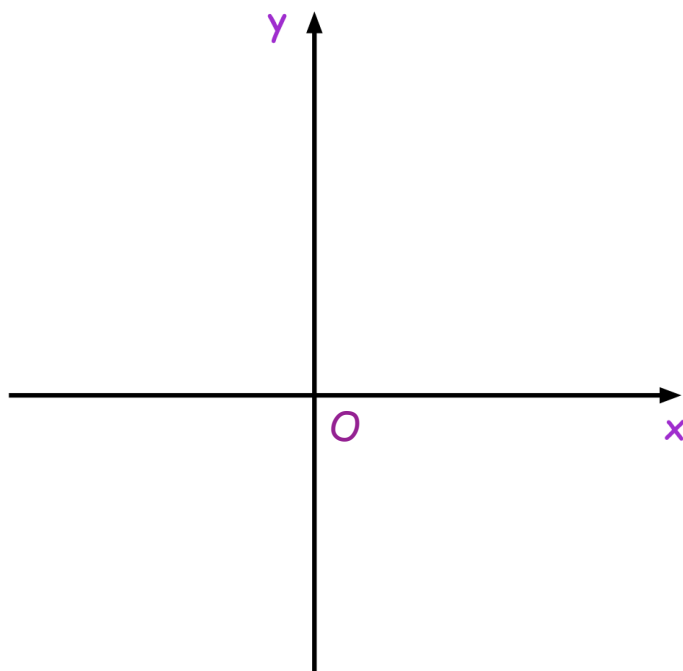
(b) Write down which graph is a sketch of $y = -x^3$

Graph
(1)

(c) Write down which graph is a sketch of $y = -x^2$

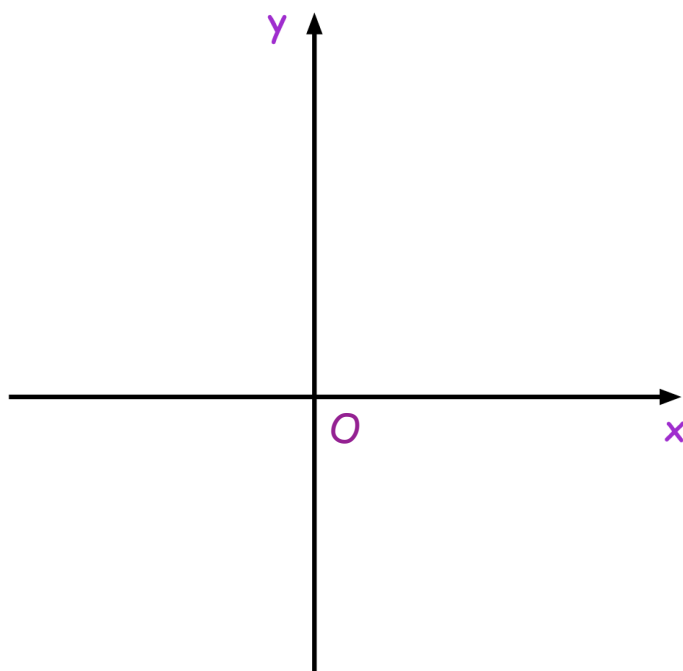
Graph
(1)

5. Sketch the graph of $y = x^3 + 4$



(2)

6. Sketch the graph of $y = x^3 - 1$



(2)

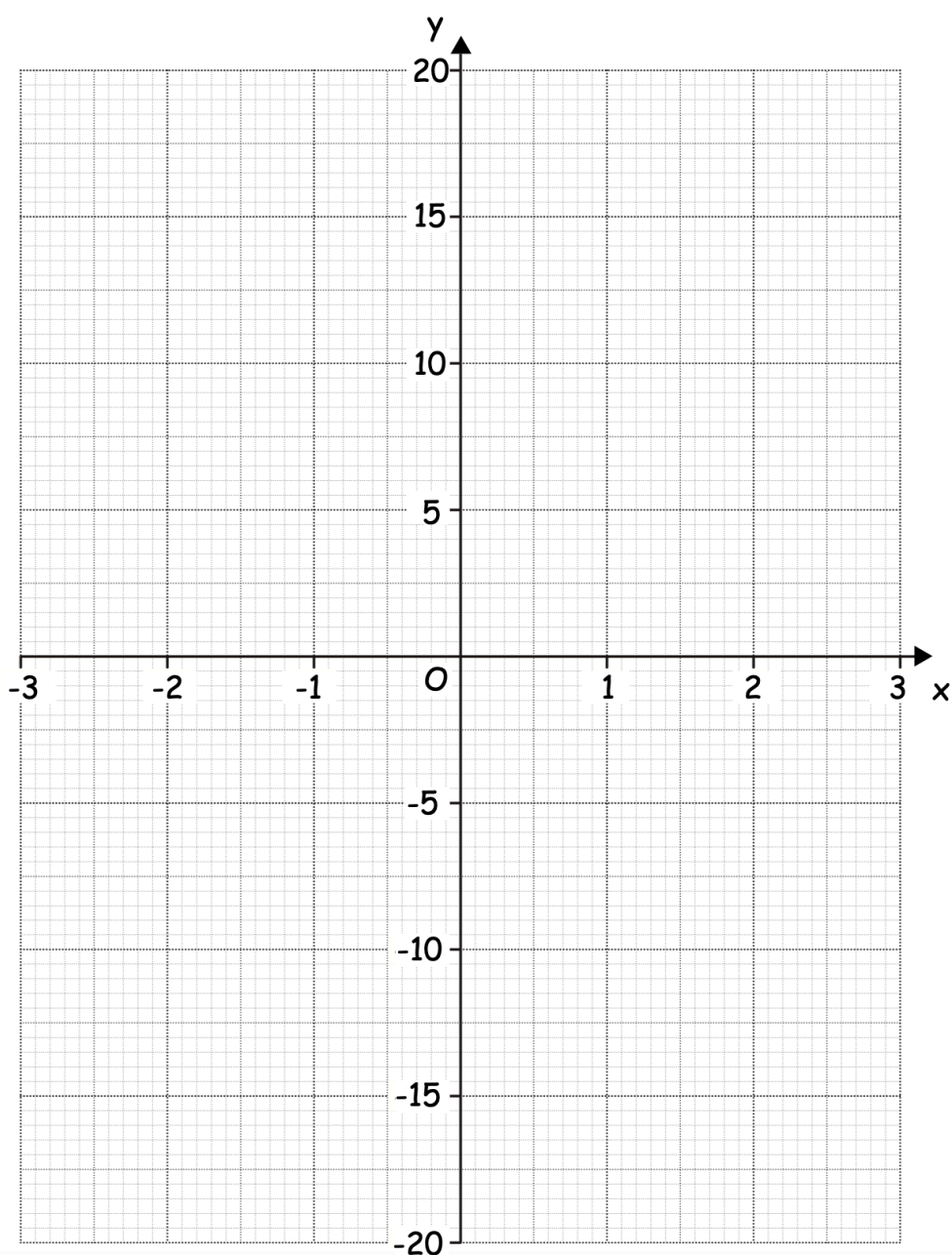
7. (a) Complete the table of values for $y = x^3 - 4x$



x	-3	-2	-1	0	1	2	3
y	-15		3	0			15

(2)

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



(3)

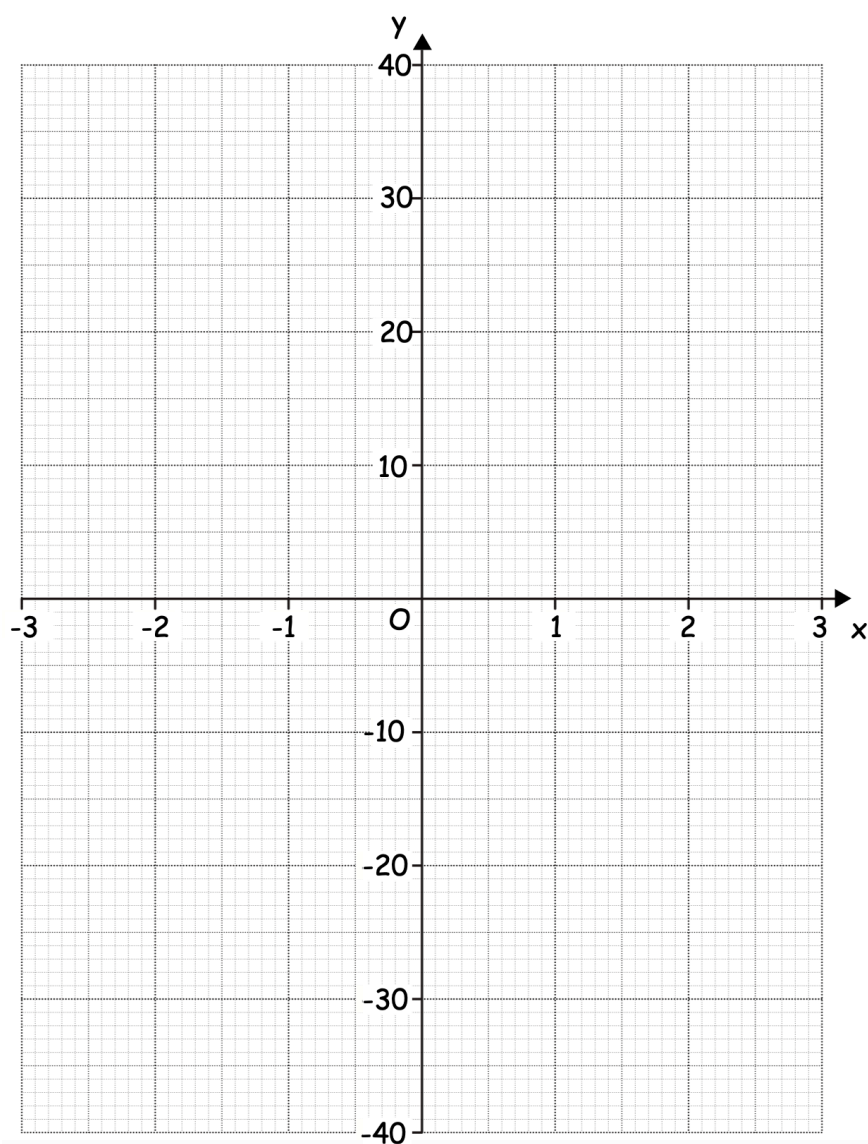
8. (a) Complete the table of values for $y = 10 - x^3$



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

(2)

- (b) Draw the graph of $y = 10 - x^3$ for the values of x from -3 to 3



(3)

- (c) Use your graph to solve $0 = 10 - x^3$

.....
(1)

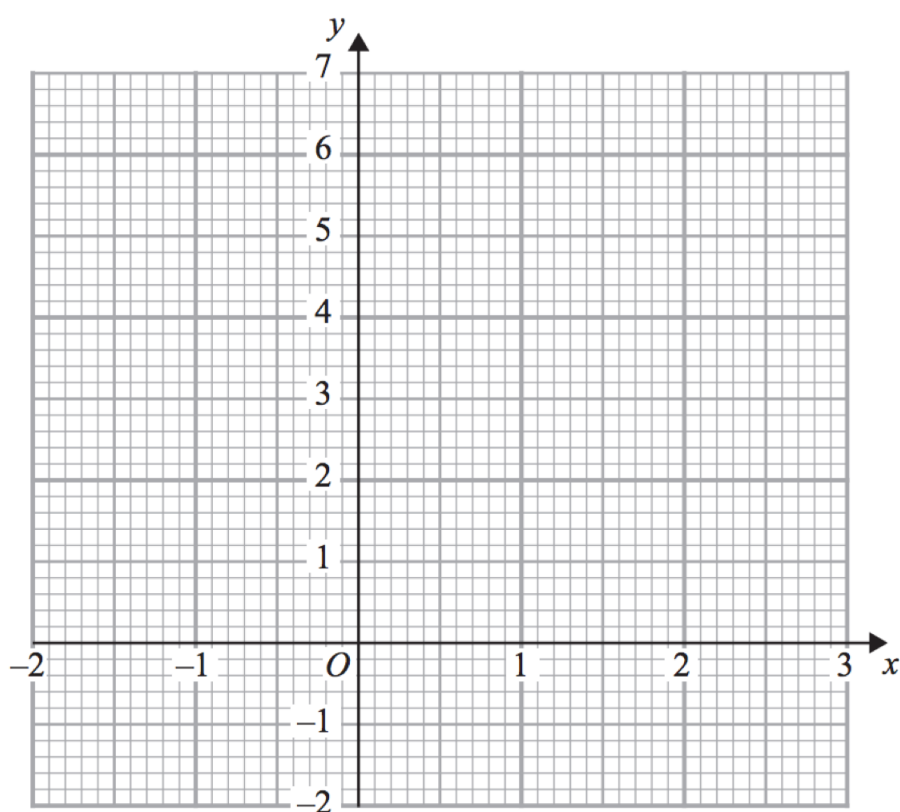
9. (a) Complete the table of values for $y = x^3 - 2x + 3$



x	-2	-1	0	1	2
y					

(2)

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



(2)

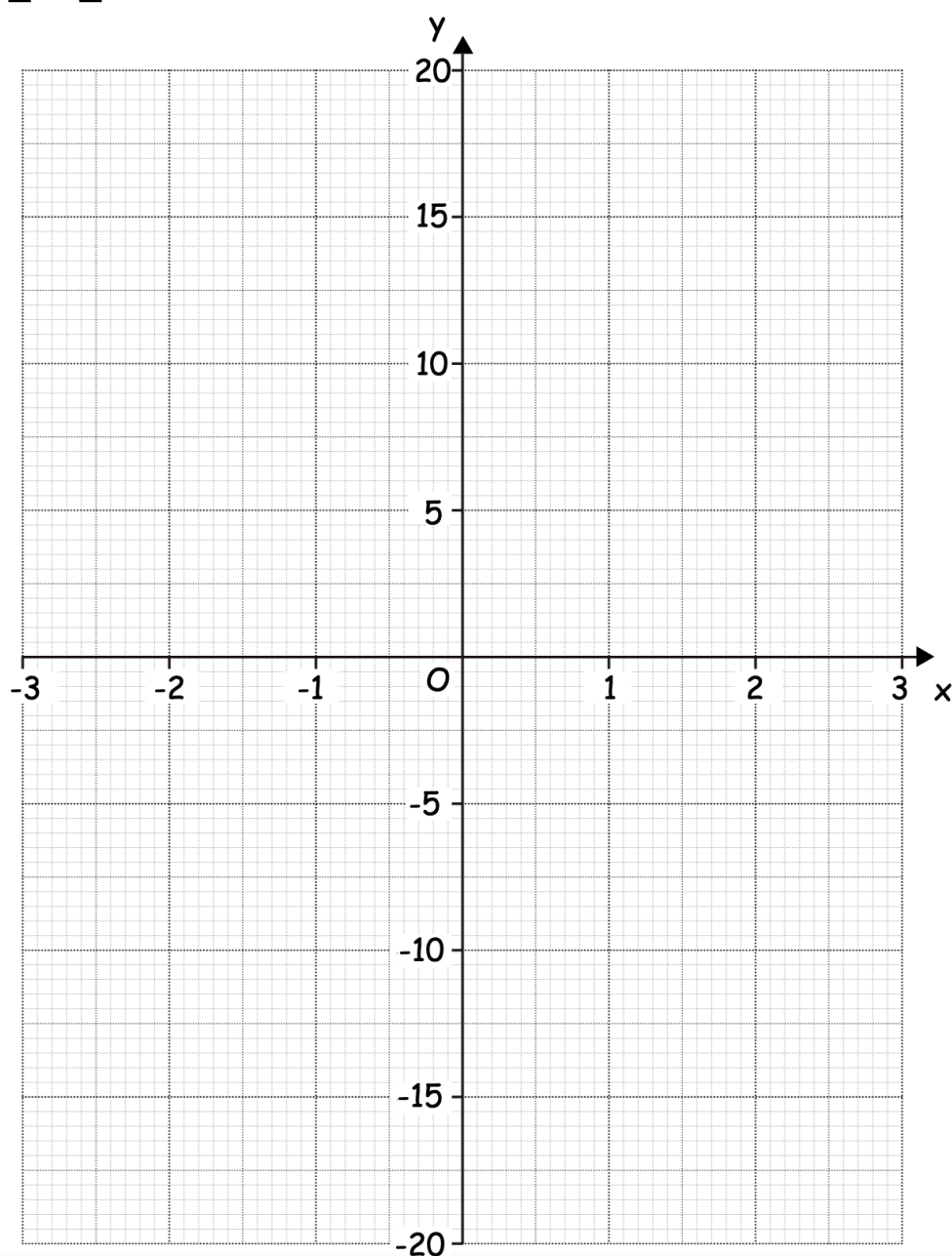
10. (a) Complete the table of values for $y = x^3 + 2x^2 - 1$



x	-3	-2	-1	0	1	2
y						

(2)

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



(2)

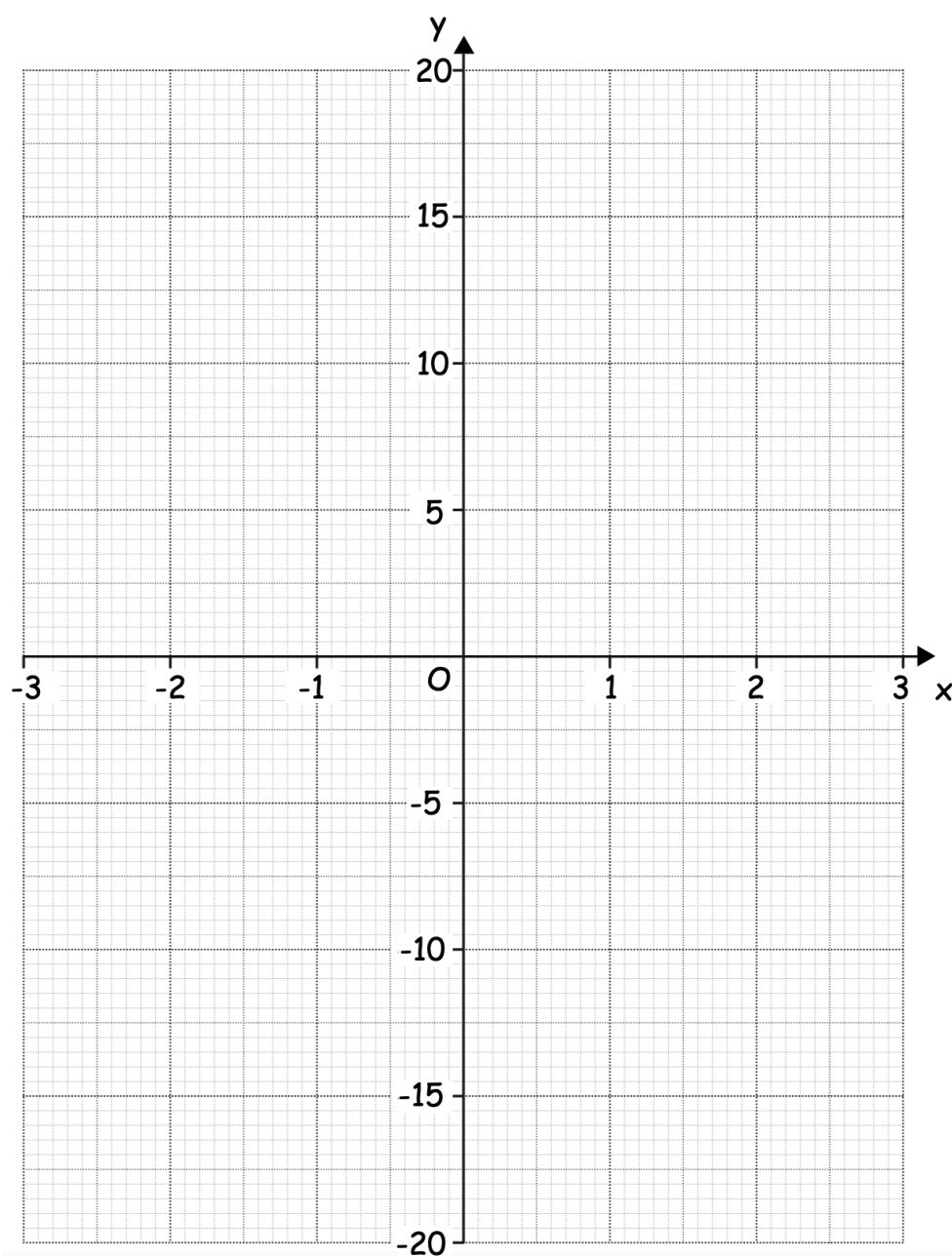
11. (a) Complete this table of values for $y = -x^3 - x + 2$



x	-2	-1	0	1	2
y					

(2)

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



(2)