Name:

Exam Style Questions

Drawing Linear Graphs

Corbettmaths

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

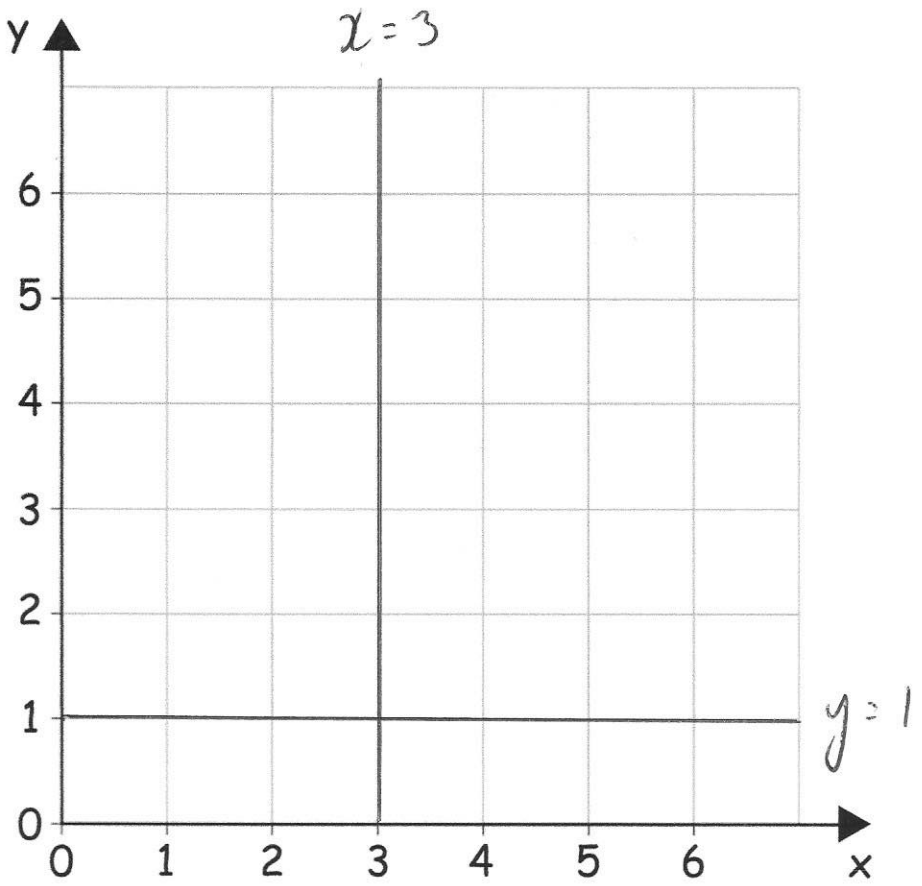
Video Tutorial

www.corbettmaths.com/contents

Videos 186, 187, 192, 193

Answers and Video Solutions

1.



(a) On the grid, draw the graph of x = 3

(1)

(b) On the grid, draw the graph of y = 1

(1)

(c) Write down the coordinates of where the two lines met.

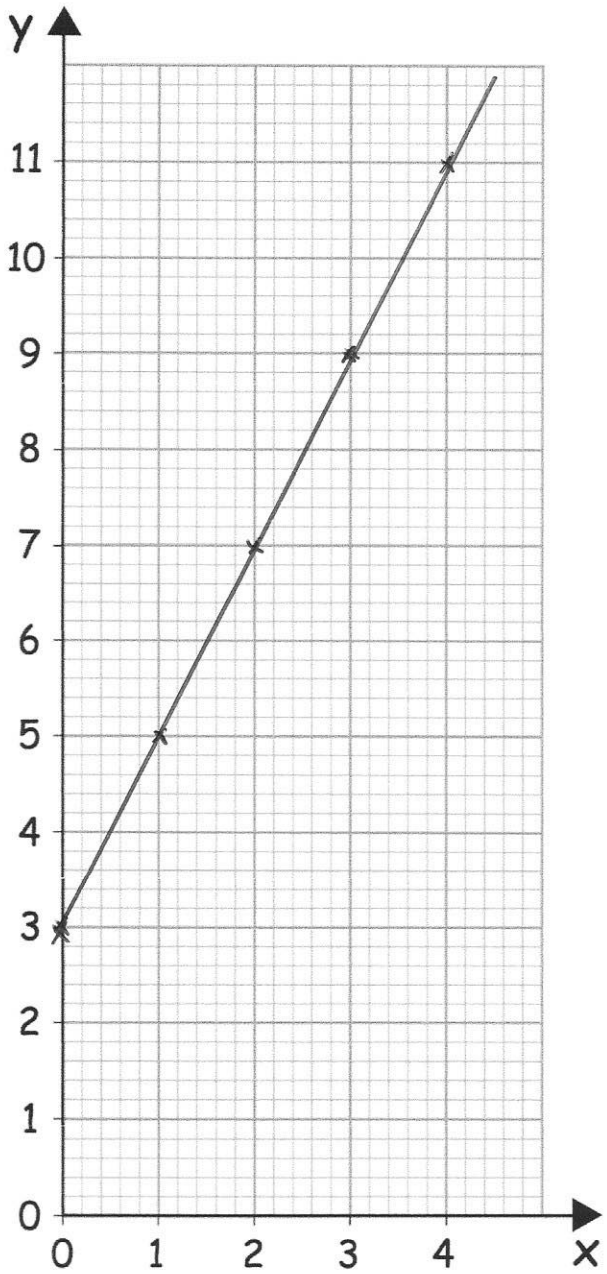
(3 , 1)

(1)

2. Here is a table of values for the equation $y = 2x + 3$

x	0	1	2	3	4
y	3	5	7	9	11

Draw the graph of $y = 2x + 3$ for values of x from 0 to 4



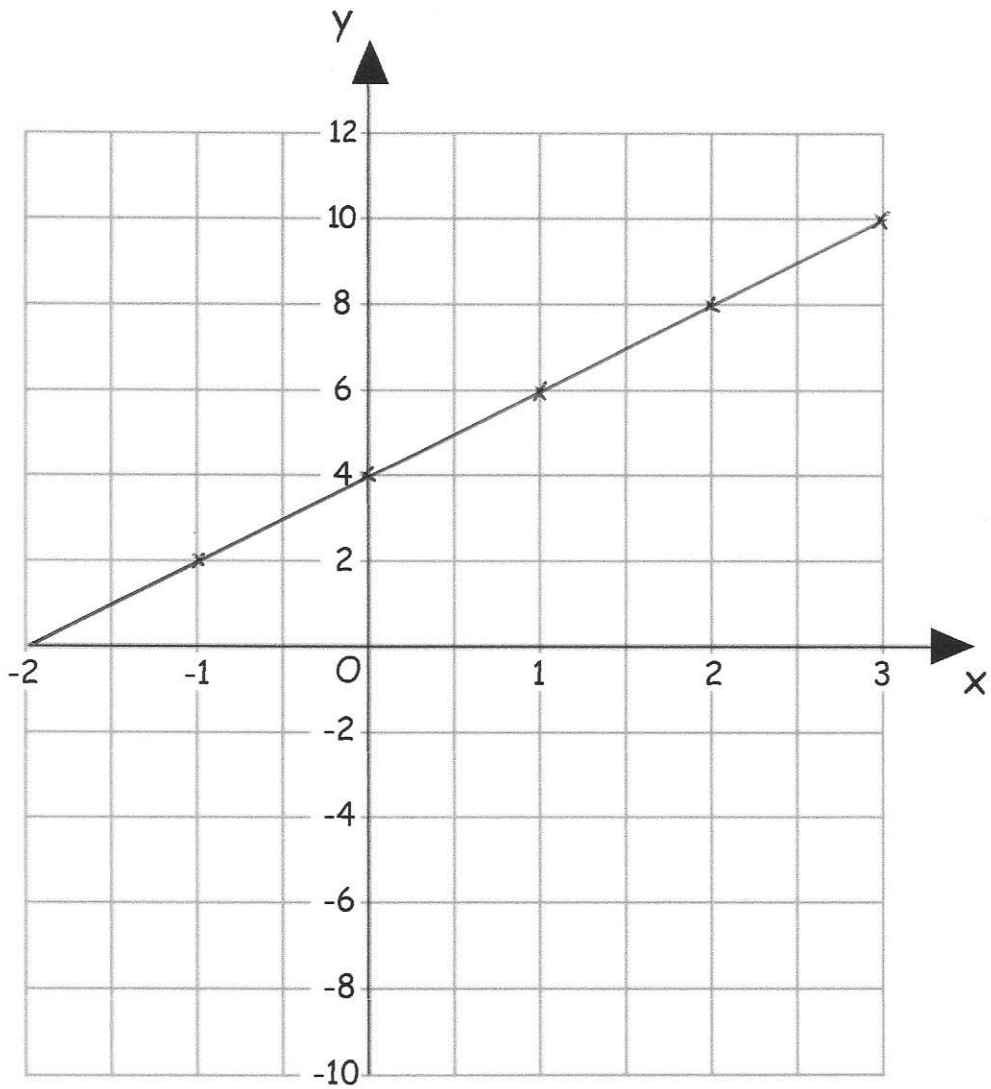
(2)

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

x	-1	0	1	2	3
y	2	4	6	8	10

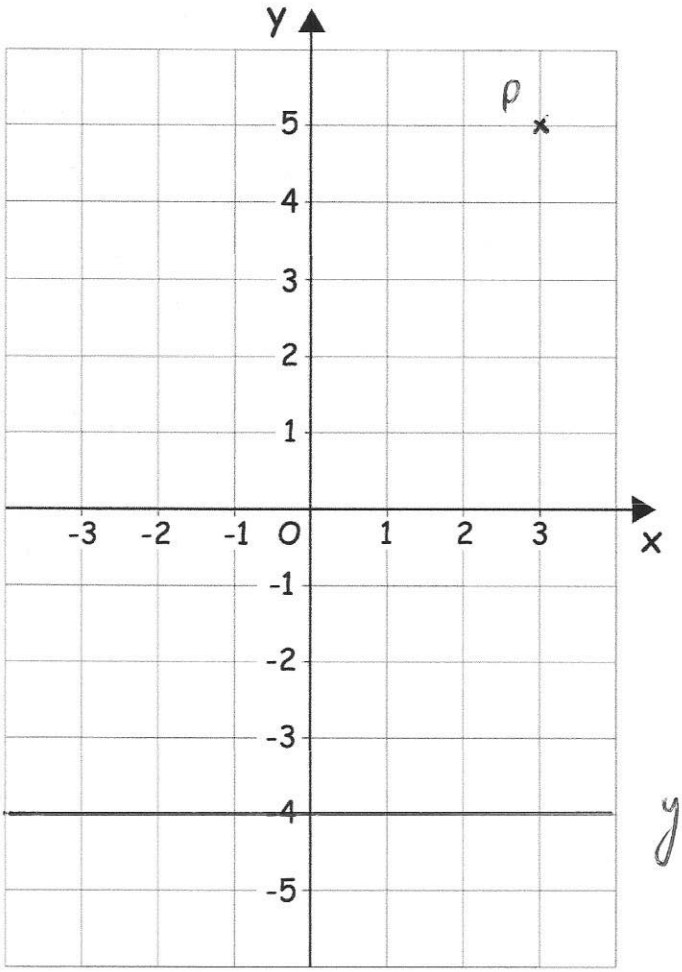
(2)

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



(2)

4.



(a) Plot the point with coordinates (3, 5)
Label the point P.

(1)

(b) Does P lie on the line with equation $y = 2x - 1$?
Explain your answer.

(3, 5)
x y

If $x = 3$, $y = 2 \times 3 - 1$ so $y = 5$

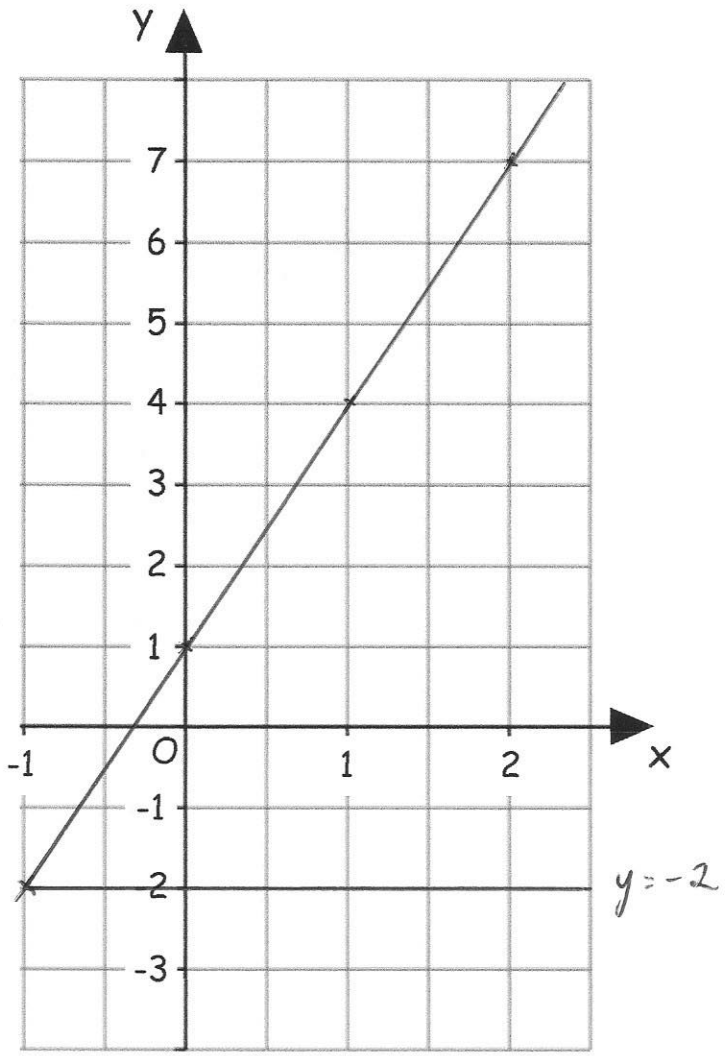
therefore (3, 5) does lie on the line $y = 2x - 1$

(1)

(c) On the grid, draw the line with equation $y = -4$

(1)

5.



(a) On the grid, draw the graph y = –2

(1)

(b) Complete the table of values for y = 3x + 1

x	-1	0	1	2
y	-2	1	4	7

(2)

(c) On the grid, draw the graph of y = 3x + 1

(2)

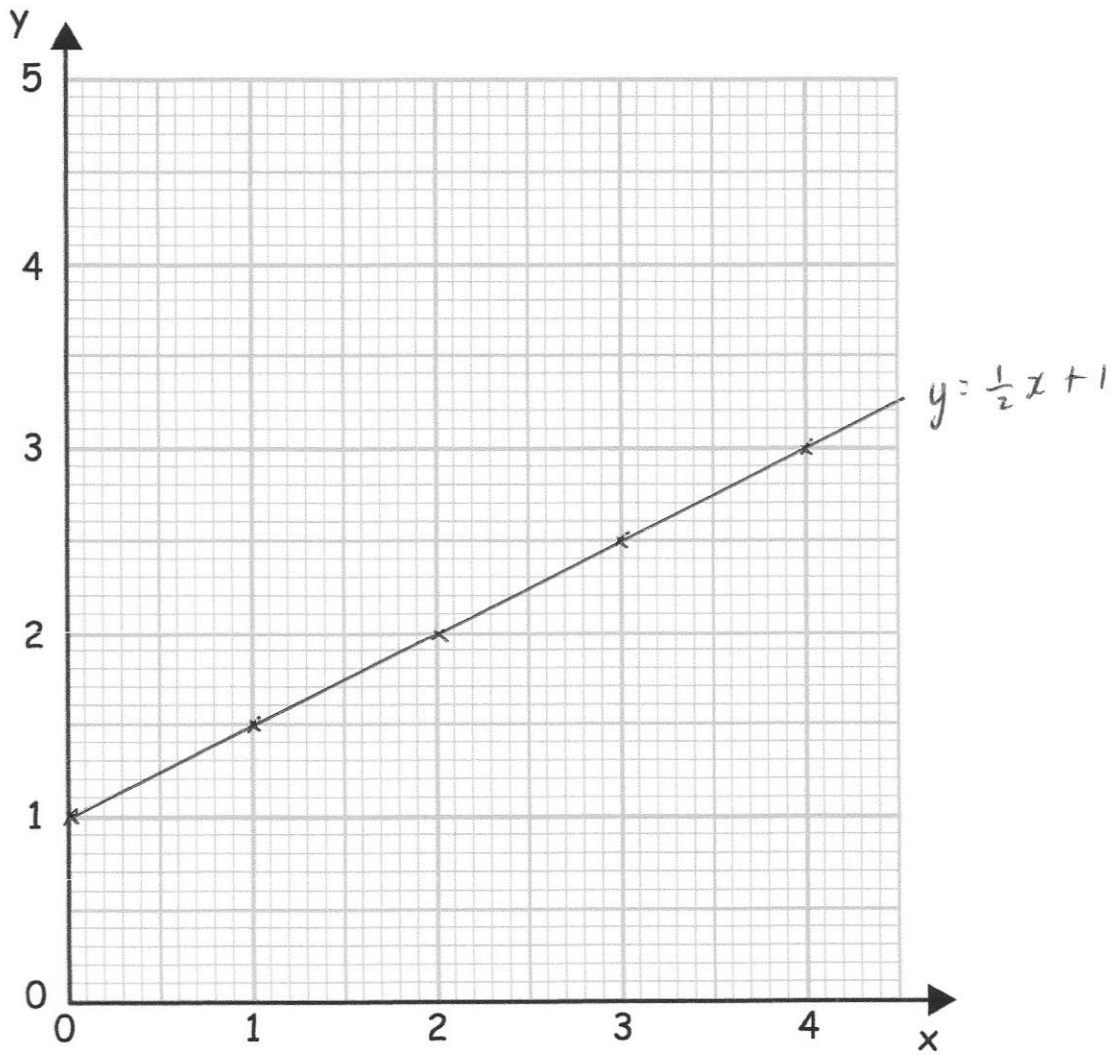
6.

(a) Complete the table of values for $y = \frac{1}{2}x + 1$

x	0	1	2	3	4
y	1	1.5	2	2.5	3

(2)

(b) On the grid, draw the graph of $y = \frac{1}{2}x + 1$



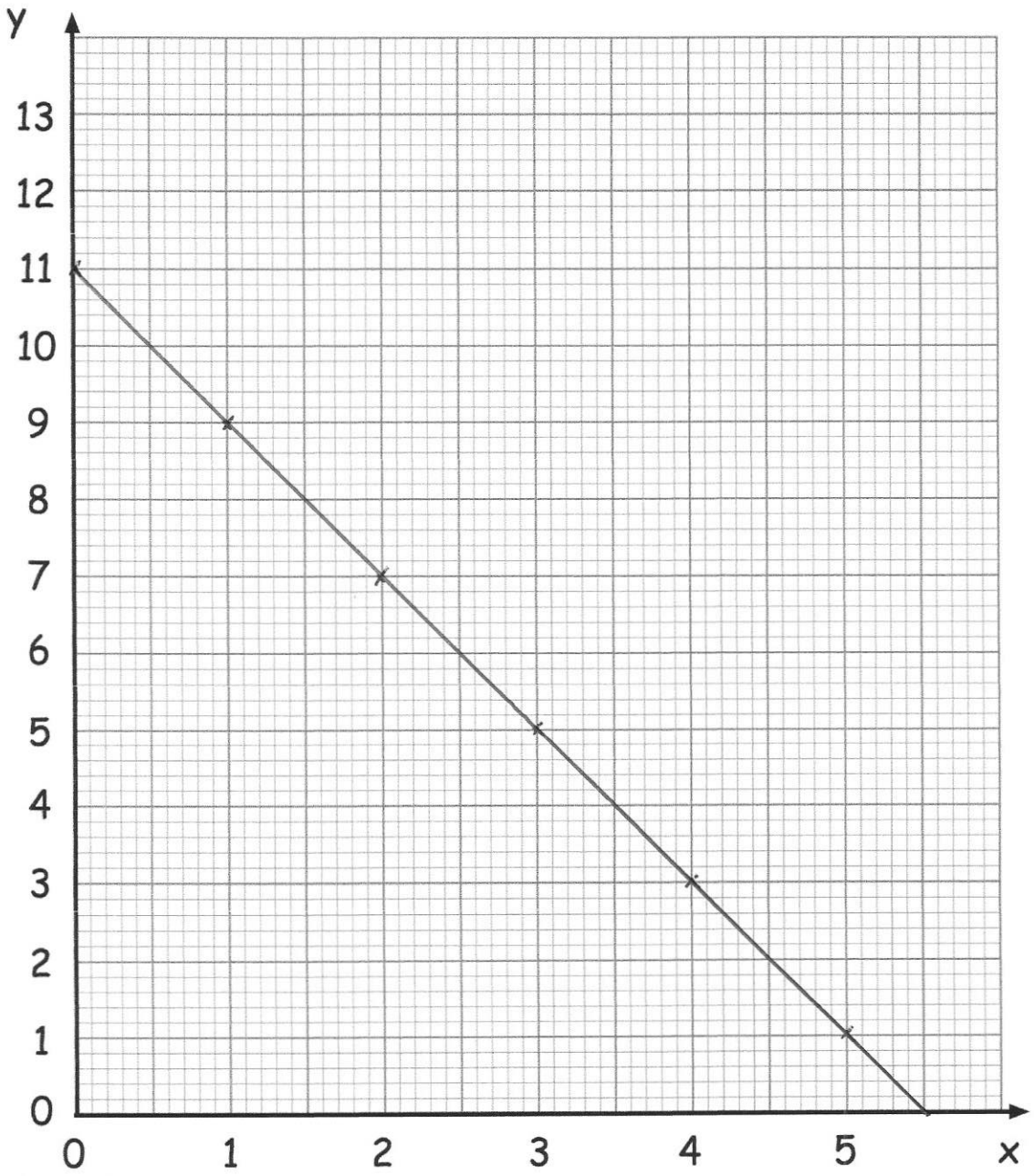
(2)

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

x	0	1	2	3	4	5
y	11	9	7	5	3	1

(2)

(b) On the grid, draw the graph of $y = -2x + 11$ for values of x from 0 to 5.



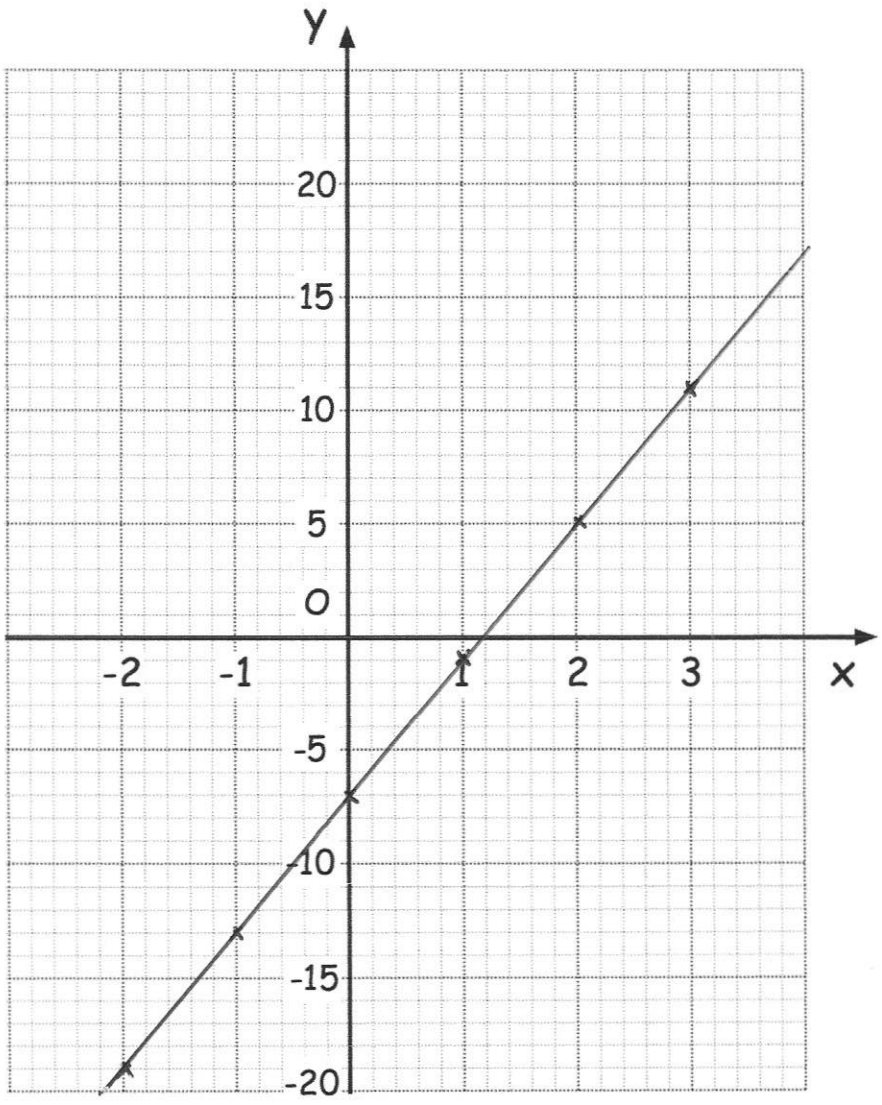
(2)

8. (a) Complete the table below for $y = 6x - 7$

x	-2	-1	0	1	2	3
y	-19	-13	-7	-1	5	11

(2)

(b) On the grid below, draw the graph of $y = 6x - 7$



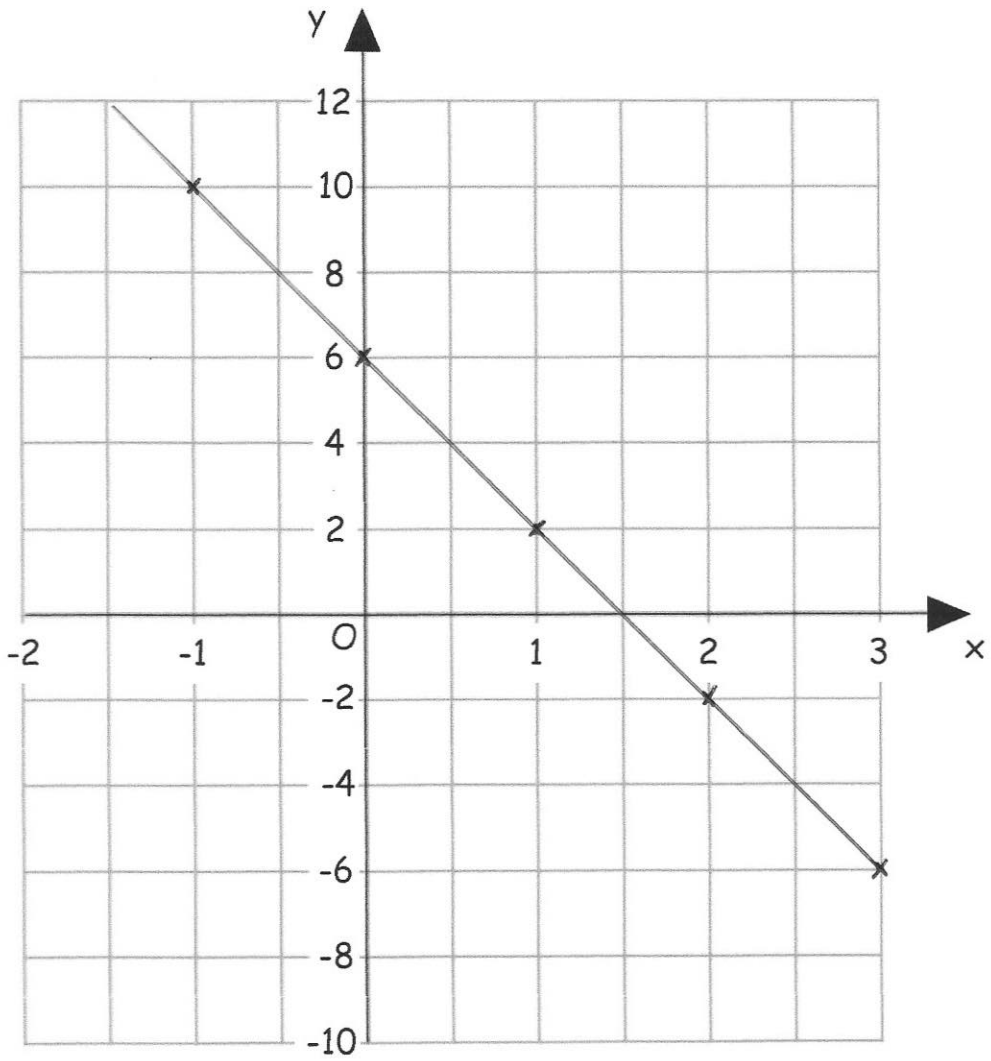
(2)

9. (a) Complete the table of values for $y = 6 - 4x$

x	-1	0	1	2	3
y	10	6	2	-2	-6

(2)

(b) On the grid, draw the graph of $y = 6 - 4x$ for values of x from –1 to 3.



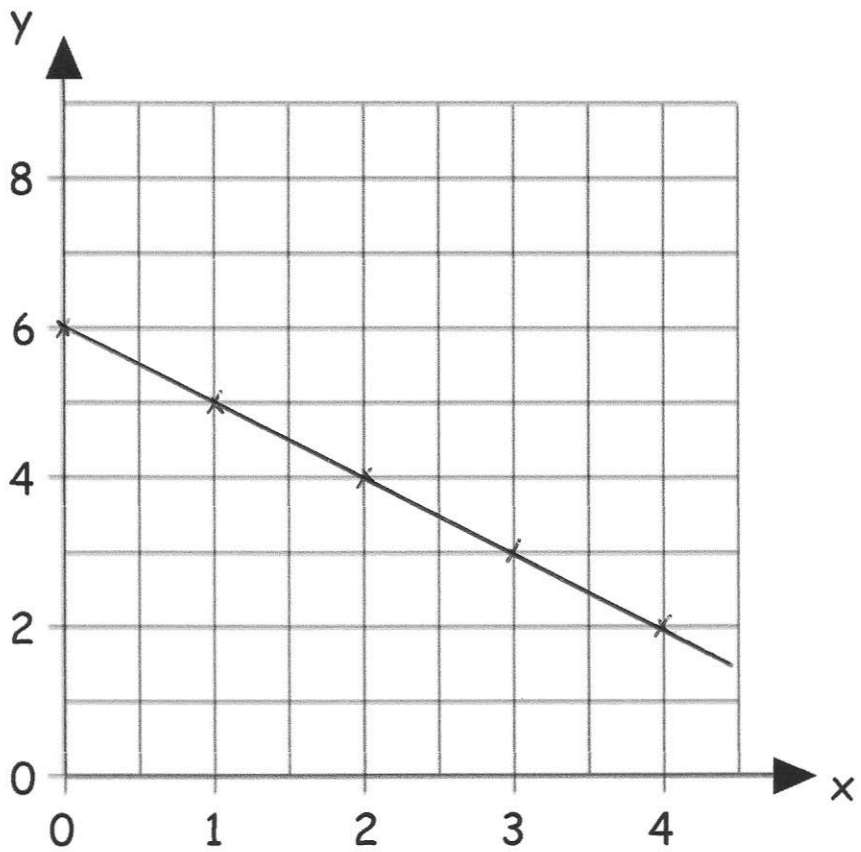
(2)

10. (a) Complete the table of values for the graph $x + y = 6$

x	0	1	2	3	4
y	6	5	4	3	2

(2)

(b) On the grid, draw the graph of $x + y = 6$.



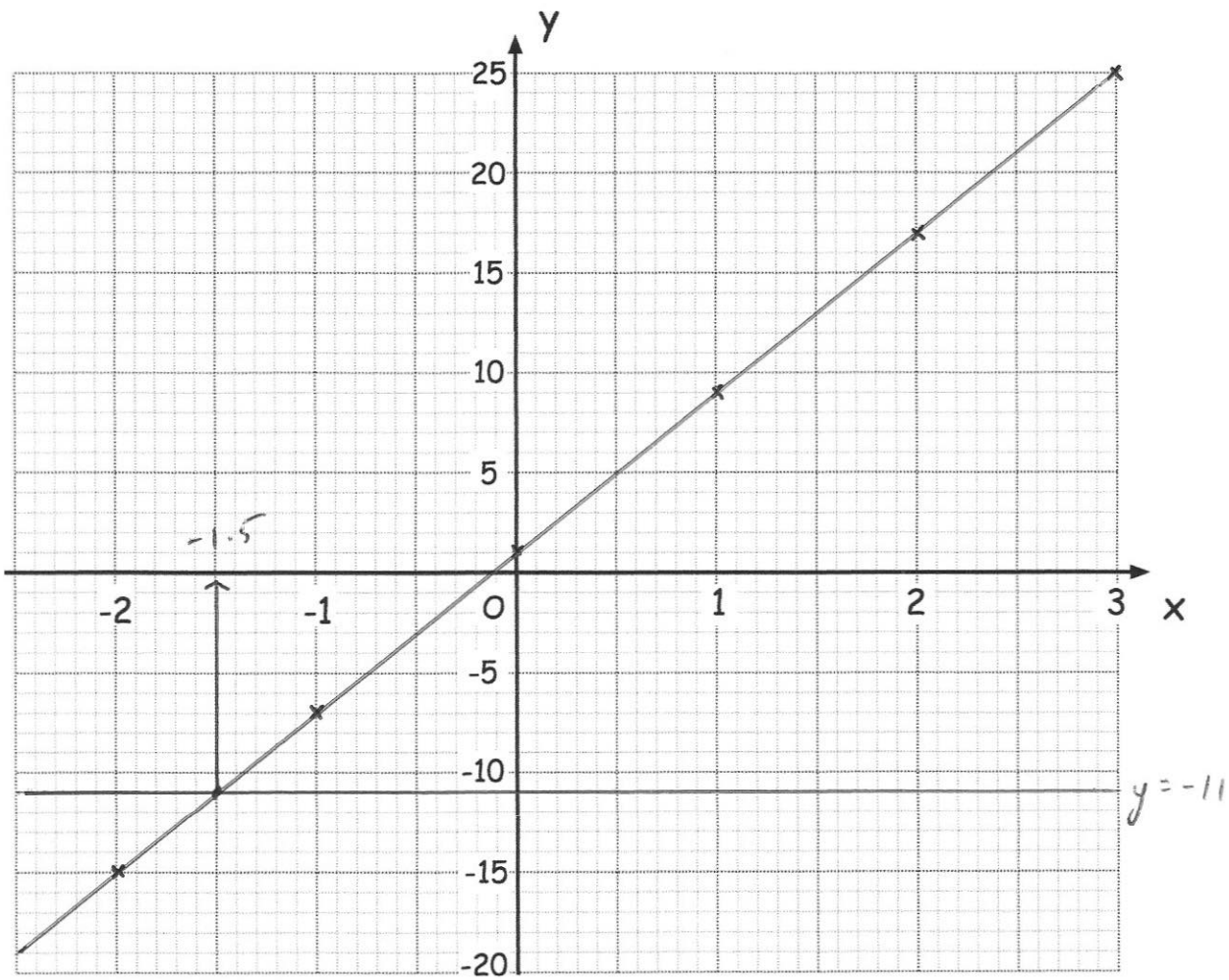
(2)

11. (a) Complete the table of values for $y = 8x + 1$

x	-2	-1	0	1	2	3
y	-15	-7	1	9	17	25

(2)

(b) On the grid, draw the graph of $y = 8x + 1$



(2)

(c) Use your graph to find the value of x when y = –11

x = -1.5

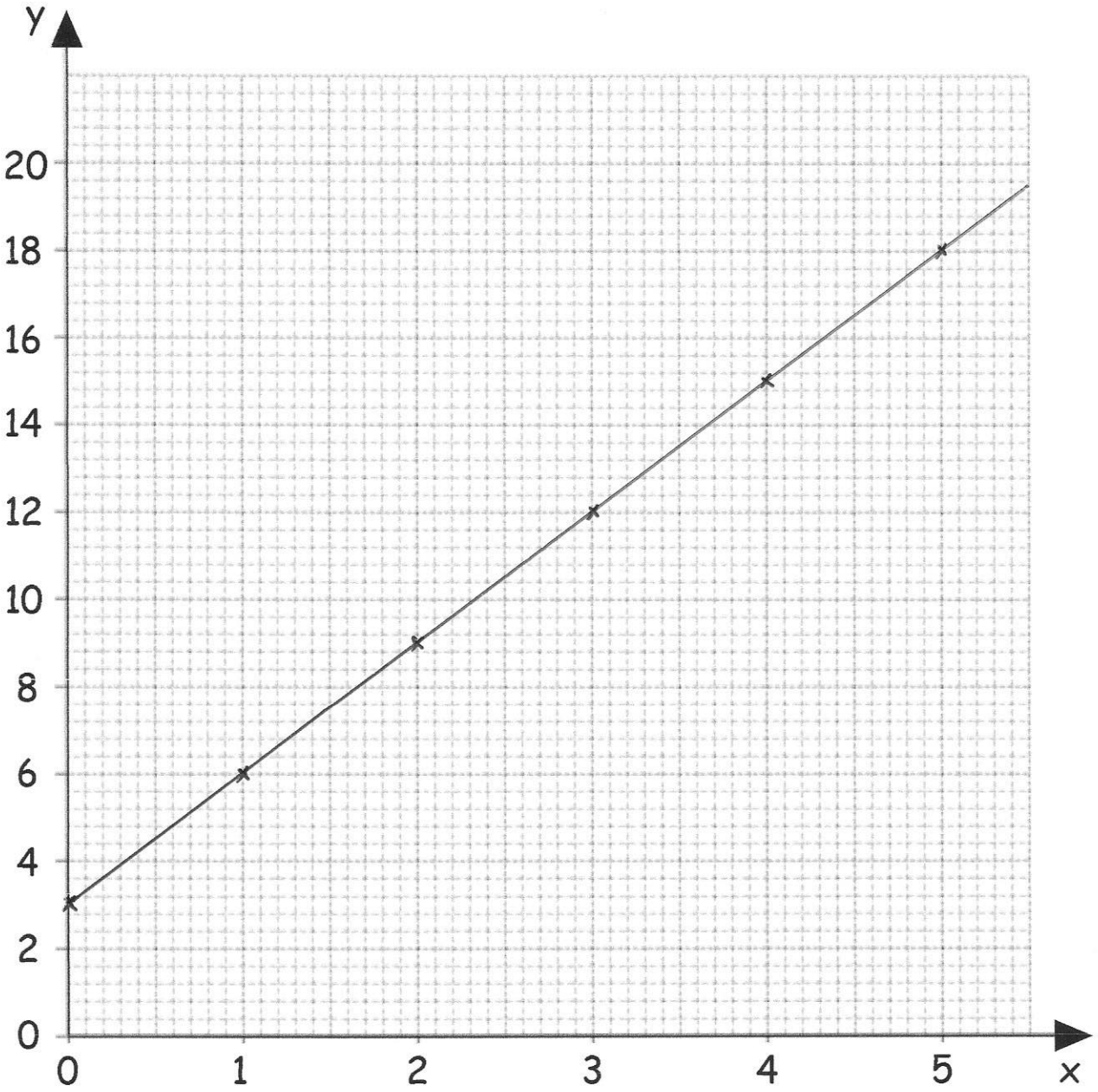
(1)

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

x	0	1	2	3	4	5
y	3	6	9	12	15	18

(2)

(b) On the grid draw the graph of $y = 3x + 3$ values of x from 0 to 5.



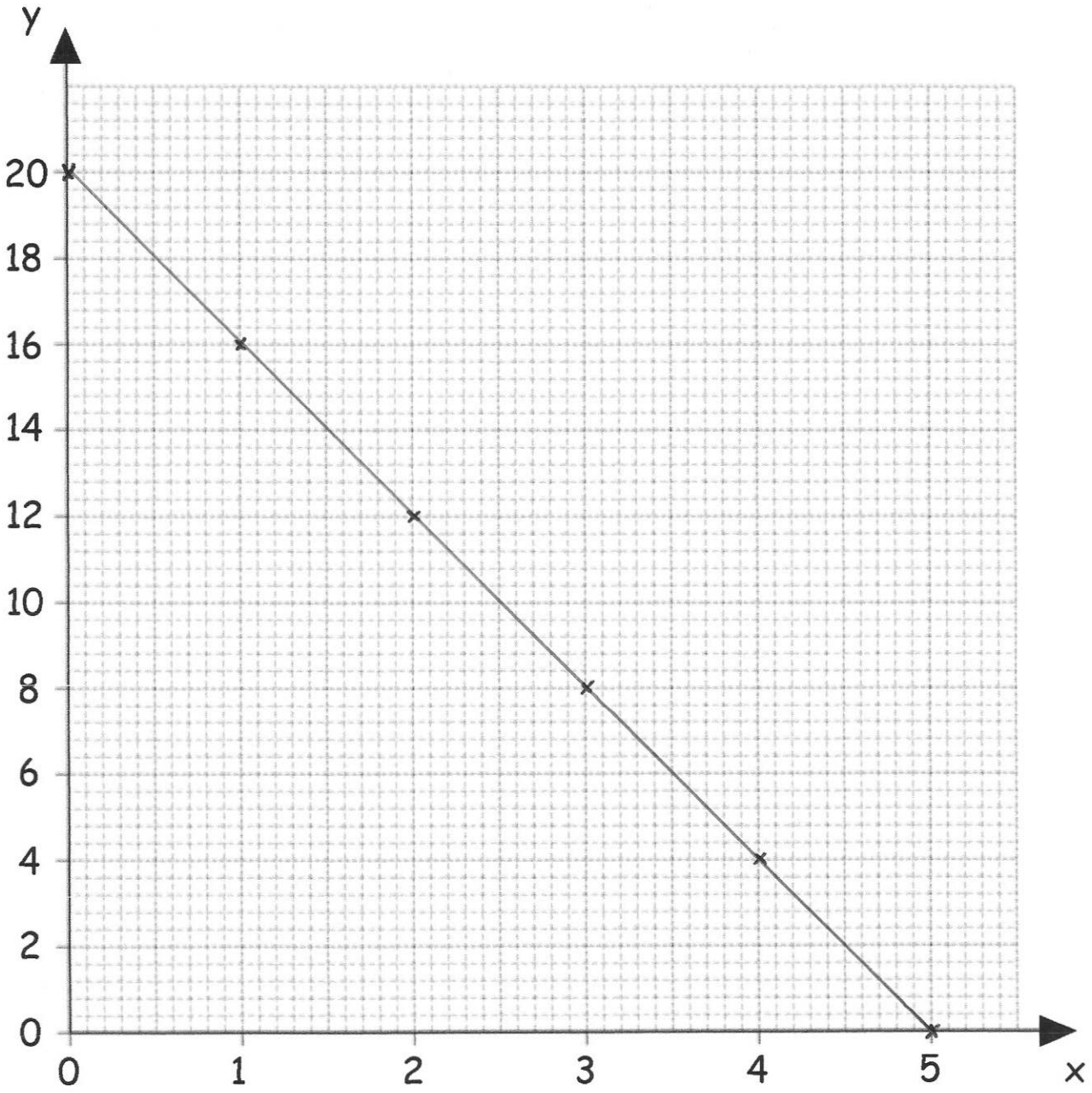
(2)

13. (a) Complete the table of values for $4x + y = 20$.

x	0	1	2	3	4	5
y	20	16	12	8	4	0

(2)

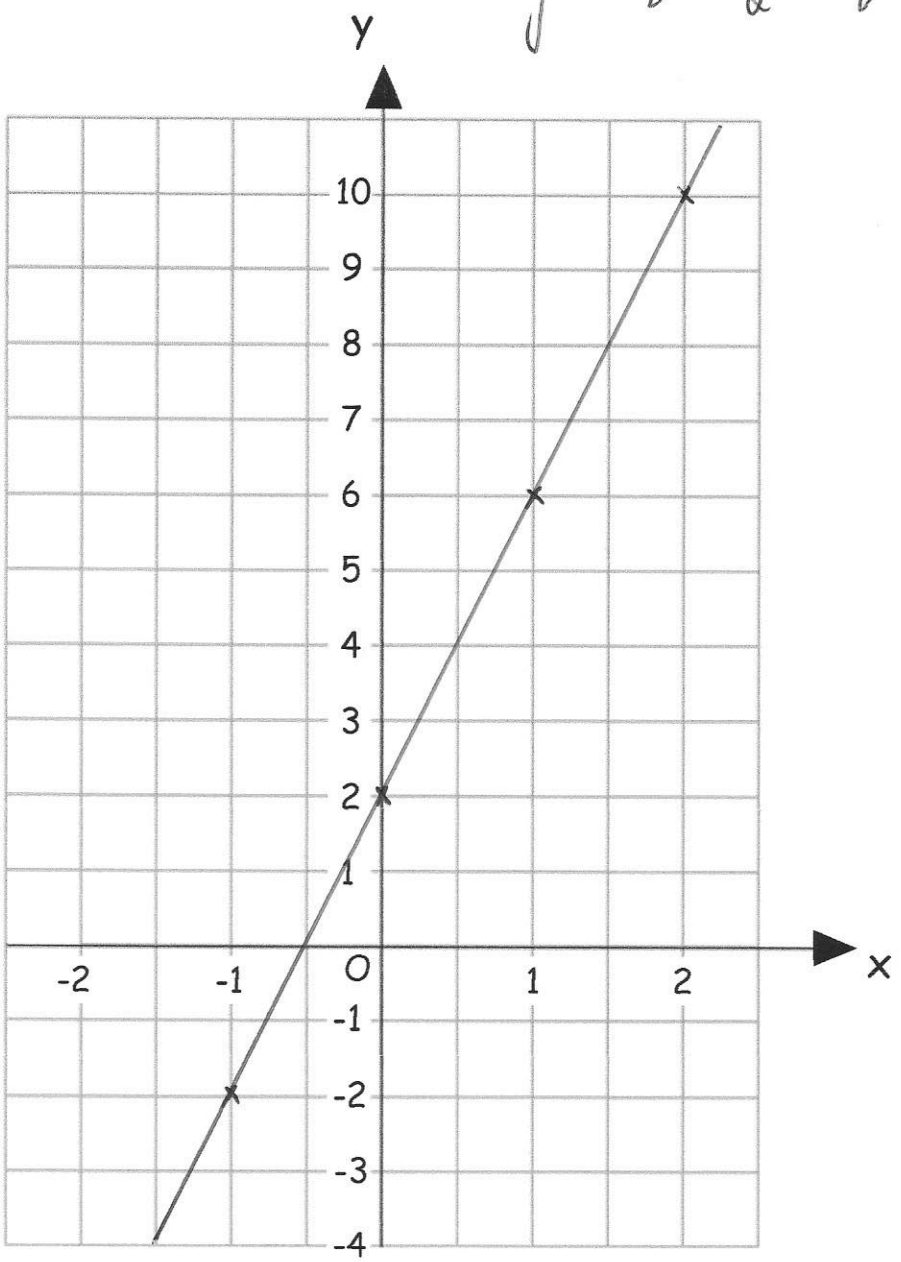
(b) On the grid draw the graph of $4x + y = 20$ values of x from 0 to 5.



(2)

14. (a) Draw the graph of $y = 4x + 2$

x	-1	0	1	2
y	-2	2	6	10



(3)

(b) Use your graph to solve $4x + 2 = 0$ $y = 0$
Explain how you obtained your answer.

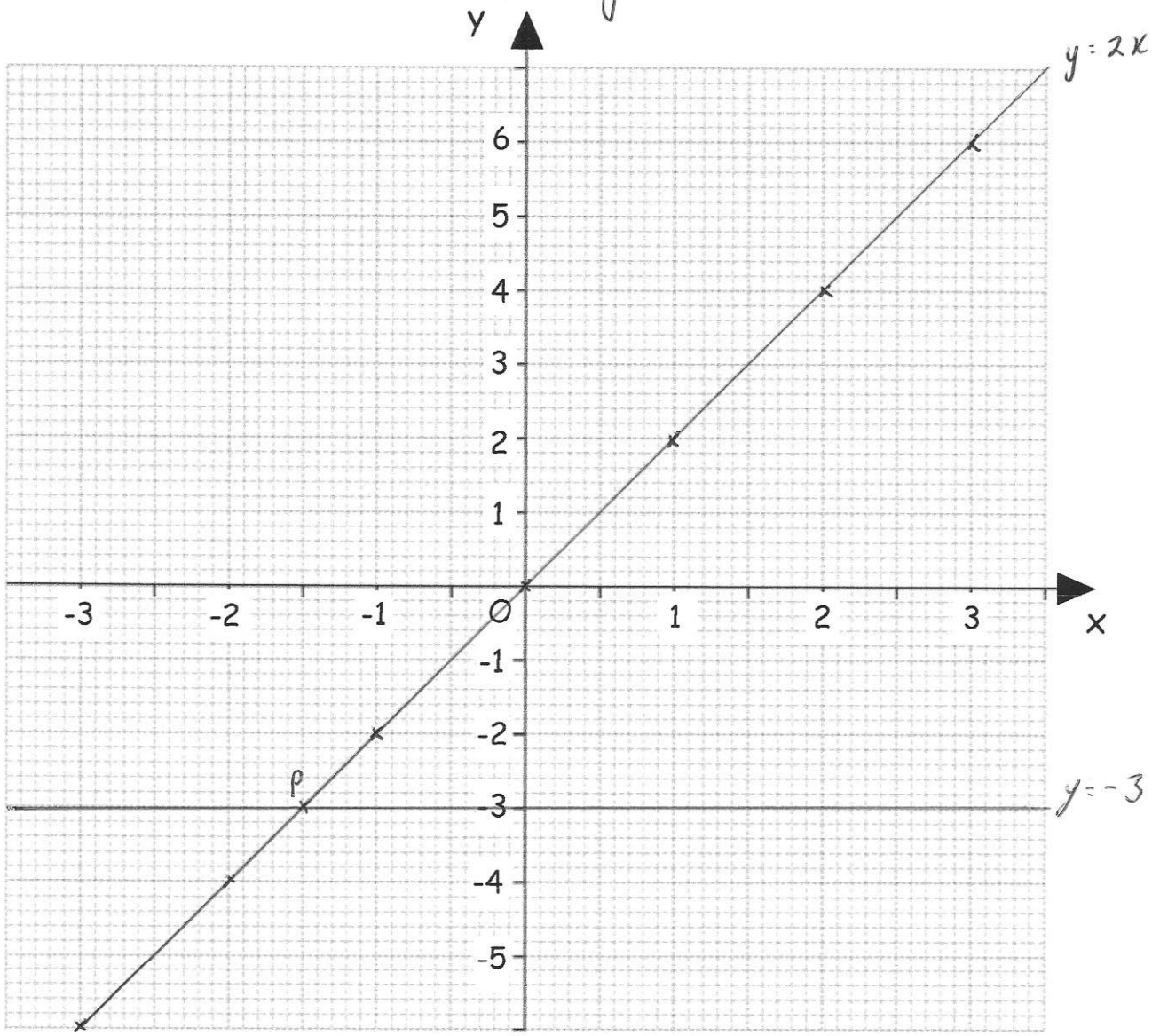
Answer $x =$ -0.5

Reason As $y = 0$, the solution will be where the graph crosses the x-axis

(2)

15. (a) On the grid draw the graph of y = 2x for the values of x from –2 to 3.

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



(3)

(b) Draw the graph y = –3 on the grid.

(1)

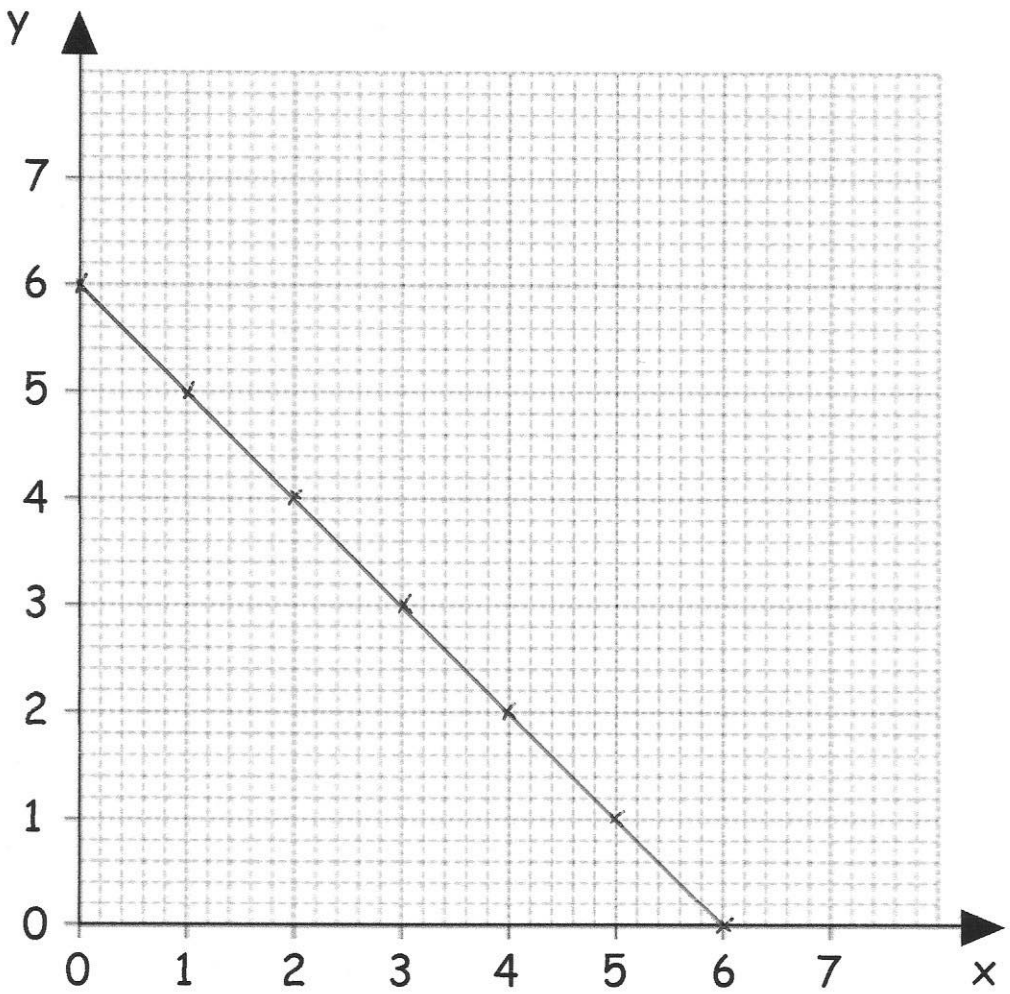
(c) Write down the coordinates of the point of intersection of the two graphs.

(-1.5 , -3)

(1)

16. On the grid below, draw the graph of $y = 6 - x$

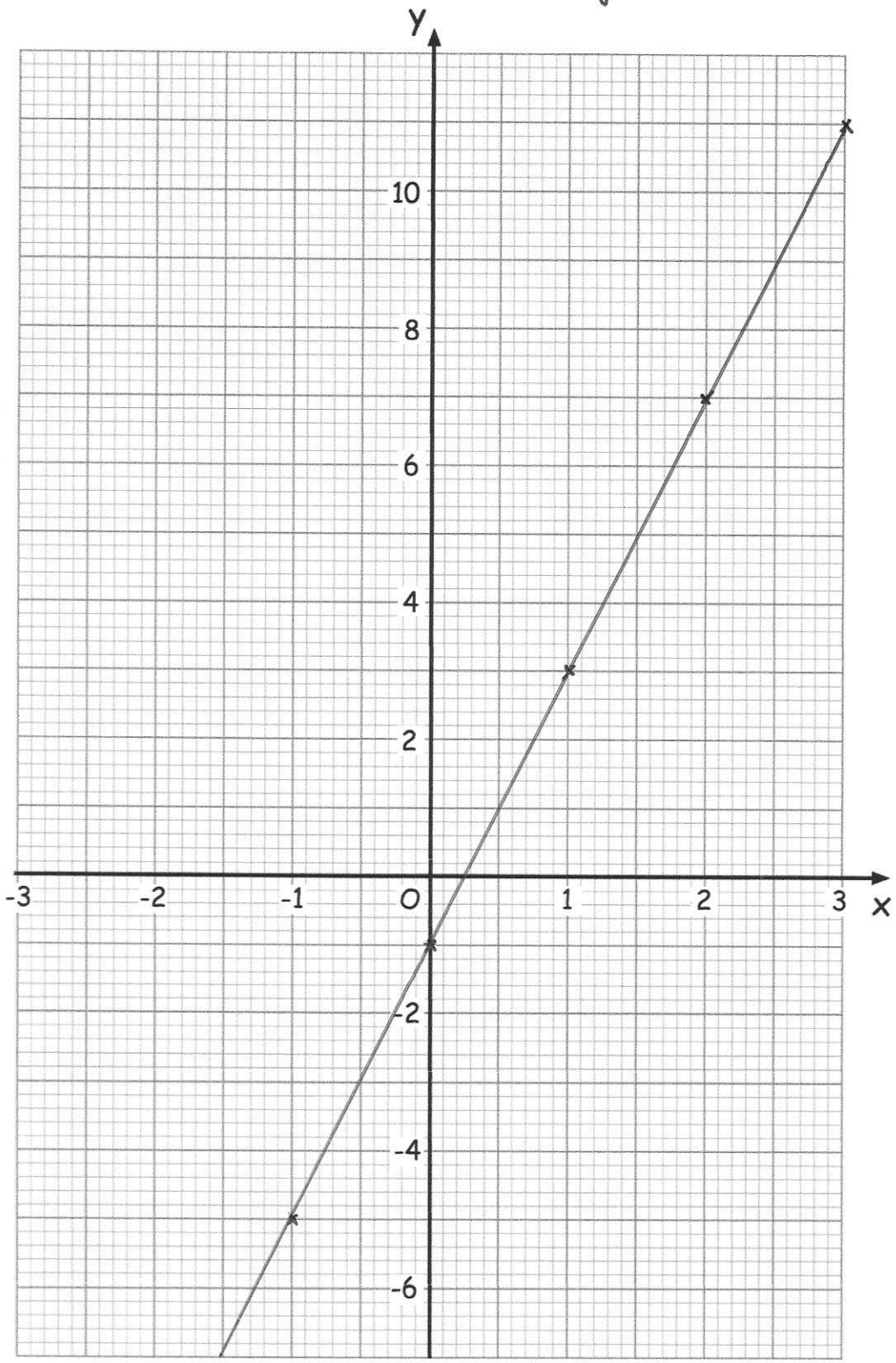
x	0	1	2	3	4	5	6
y	6	5	4	3	2	1	0



(3)

17. Draw the graph $y = 4x - 1$ on the grid below.

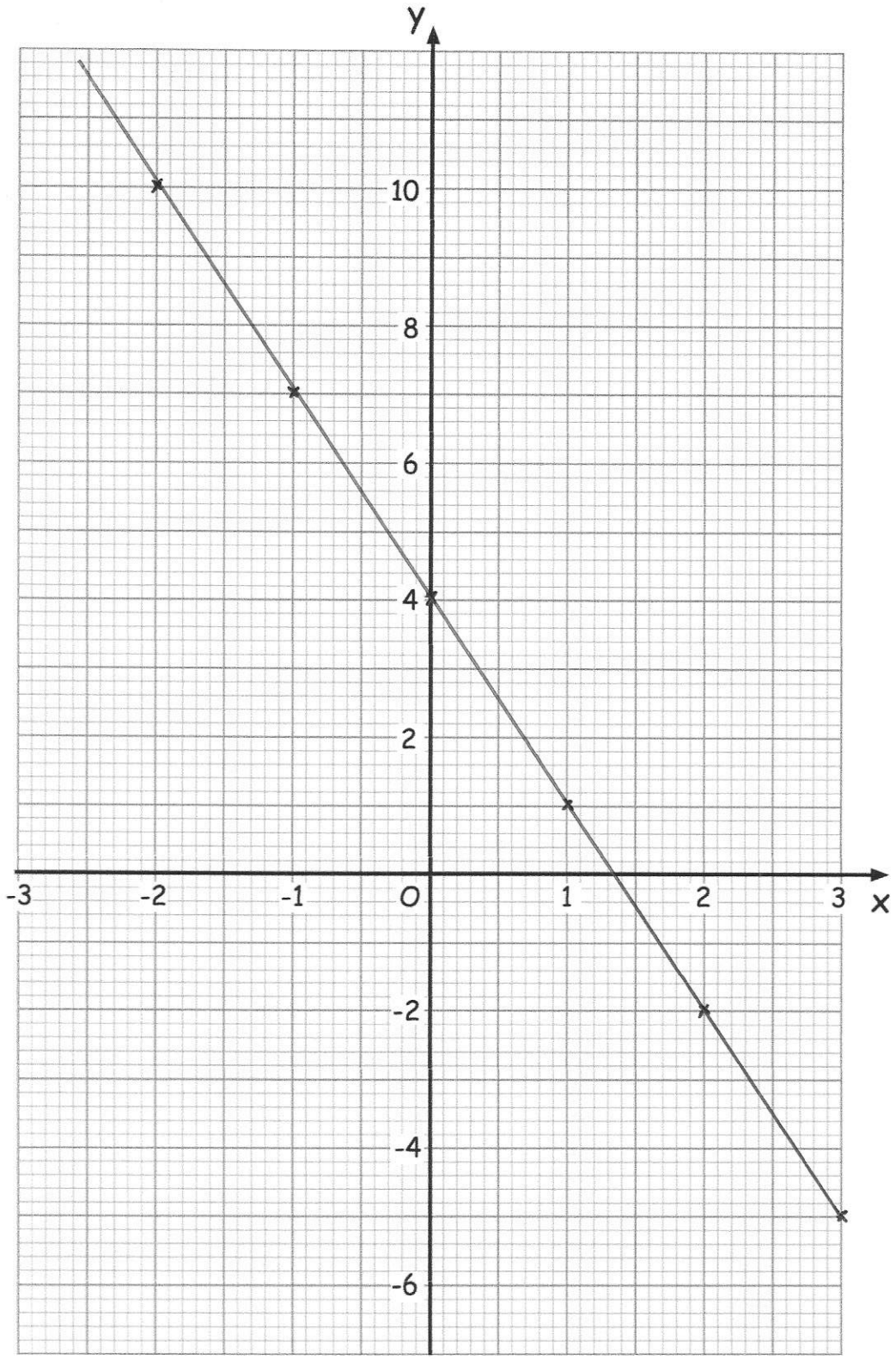
x	-3	-2	-1	0	1	2	3
y	-13	-9	-5	-1	3	7	11



(3)

18. Draw the graph $y = 4 - 3x$ on the grid below.

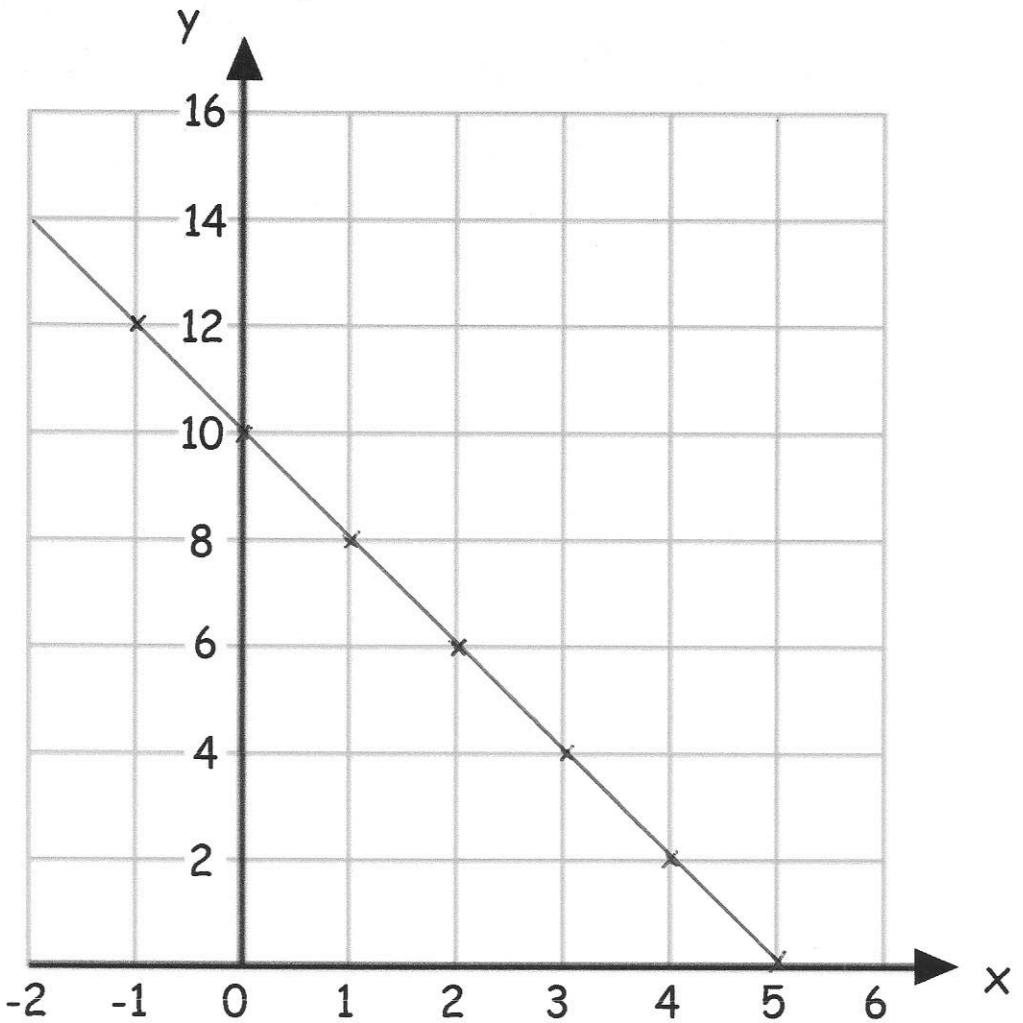
x	-3	-2	-1	0	1	2	3
y	13	10	7	4	1	-2	-5



(3)

19. On the grid draw the graph of $y = 10 - 2x$ for the values of x from –1 to 5.

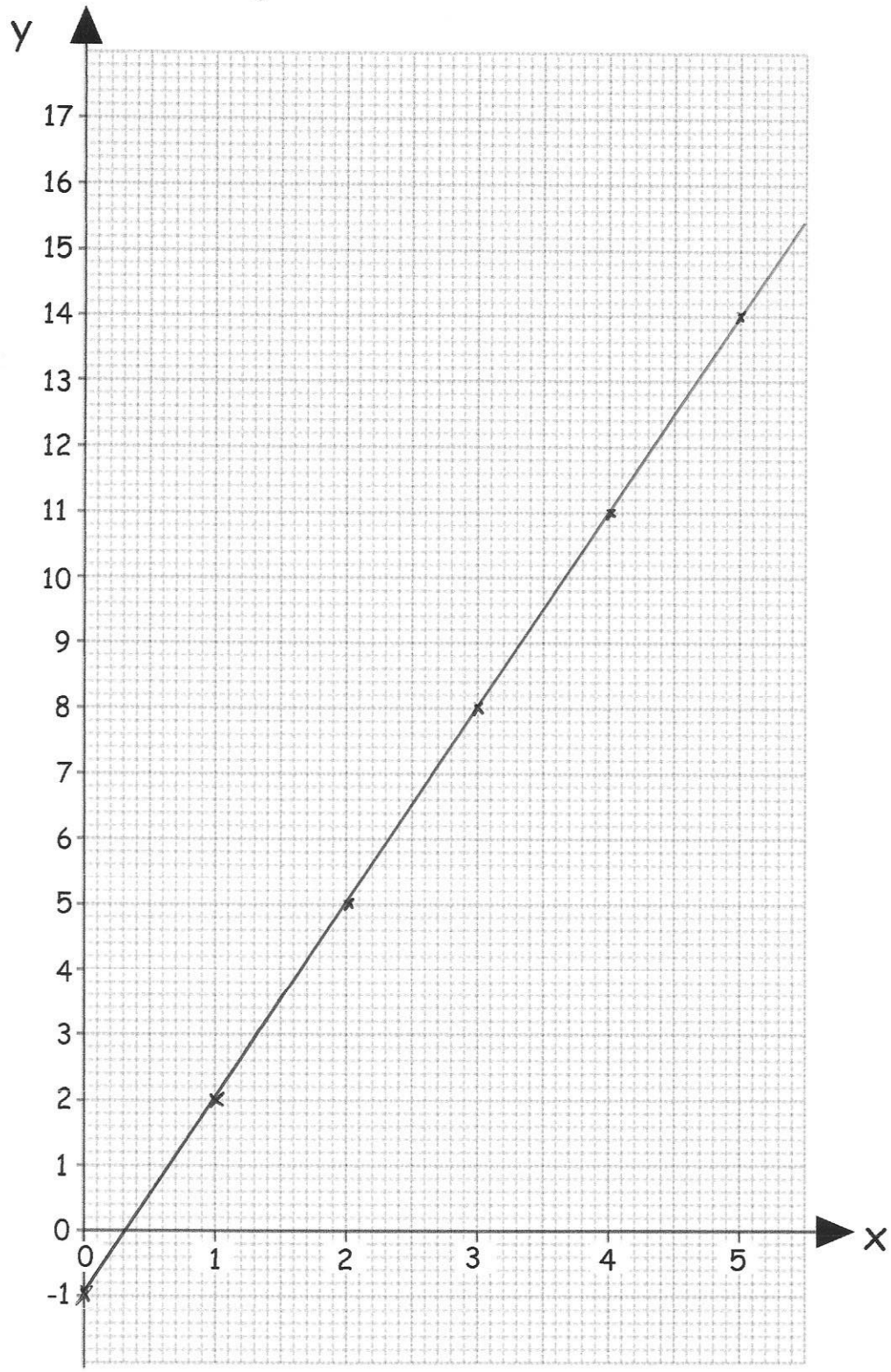
x	-1	0	1	2	3	4	5
y	12	10	8	6	4	2	0



(3)

20. On the grid below draw the graph of $y = 3x - 1$ for the values of x from 0 to 5.

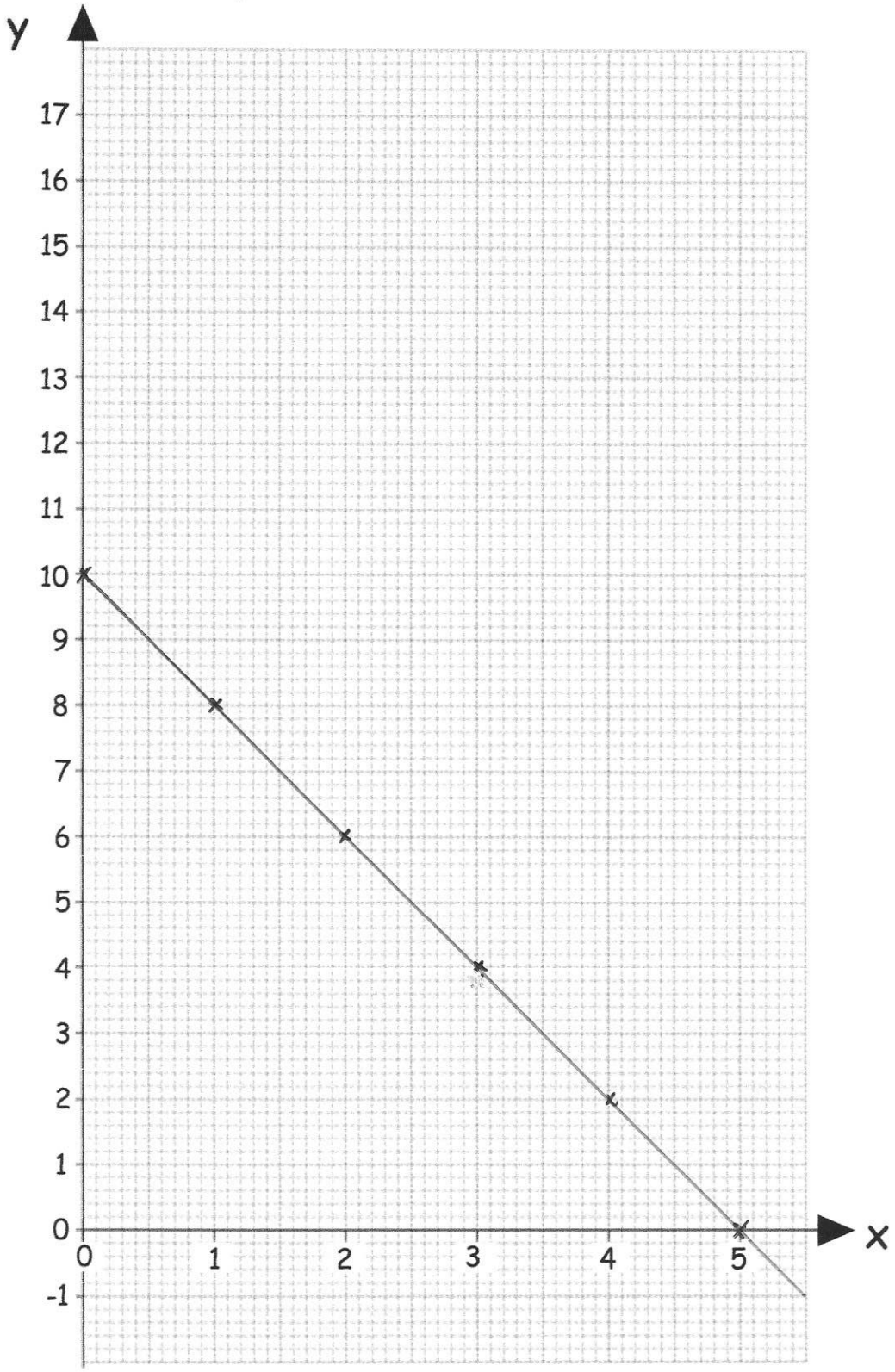
x	0	1	2	3	4	5
y	-1	2	5	8	11	14



(3)

21. On the grid below draw the graph $2x + y = 10$

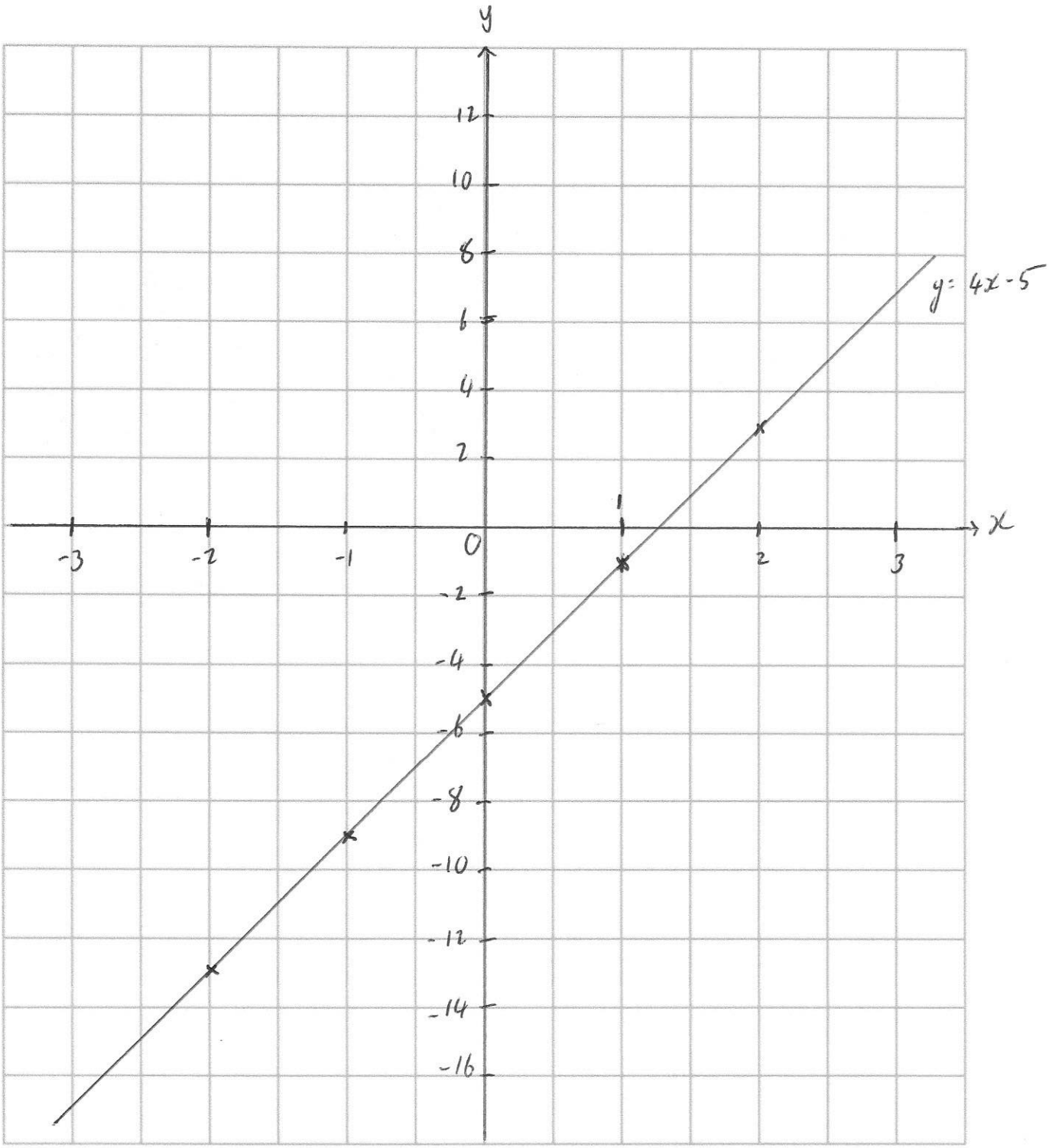
x	0	1	2	3	4	5
y	10	8	6	4	2	0



(3)

22. On the grid, draw $y = 4x - 5$ for values of x from –2 to 2.

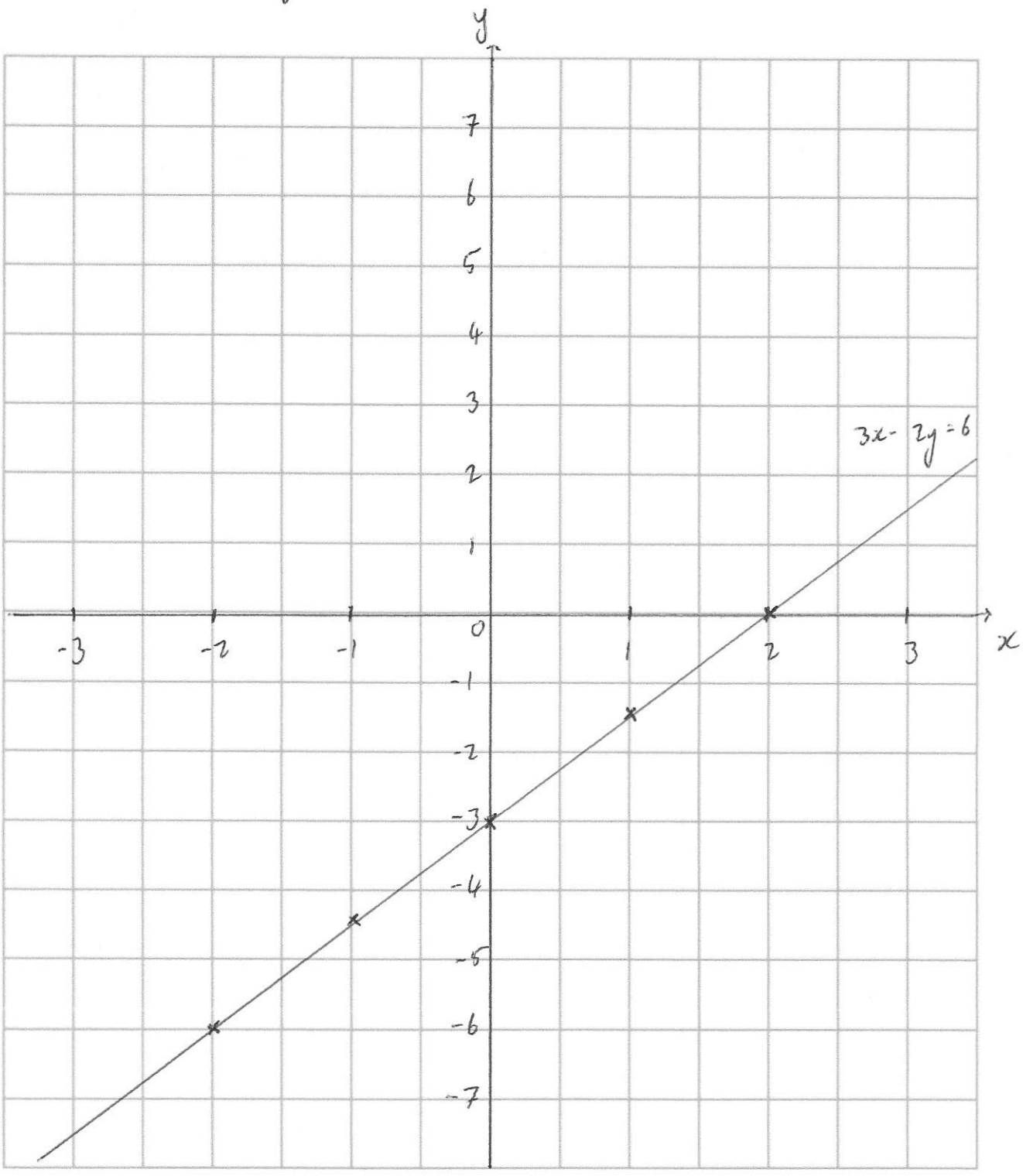
x	-2	-1	0	1	2
y	-13	-9	-5	-1	3



(4)

23. On the grid, draw the graph of $3x - 2y = 6$

x	-2	-1	0	1	2
y	-6	-4.5	-3	-1.5	0



(4)