



- 1 Complete the table of values for $y = x + 3$.

x	0	1	2	3	4
y					

Then plot the points on squared paper and join them with a straight line.

(2 marks)

Add 3 to each x

$$0 + 3 = 3$$

$$1 + 3 = 4$$

$$2 + 3 = 5$$

$$3 + 3 = 6$$

$$4 + 3 = 7$$

3, 4, 5, 6, 7

- 2 Complete the table of values for $x + y = 5$.

x	0	1	2	3	4	5
y						

Then plot the points on squared paper and join them with a straight line.

(2 marks)

$$y = 5 - x$$

$$5 - 0 = 5$$

$$5 - 1 = 4$$

$$5 - 2 = 3$$

$$5 - 3 = 2$$

$$5 - 4 = 1$$

$$5 - 5 = 0$$

5, 4, 3, 2, 1, 0

3 Here is a table of values for $y = 2x + 1$

x : -2, -1, 0, 1, 2, 3

y : -3, ?, 1, 3, ?, 7

- Work out the missing value of y when $x = -1$
- Work out the missing value of y when $x = 2$
- Write down the coordinates of the point where the line crosses the y -axis.

(3 marks)

a) When $x = -1$, $y = 2(-1) + 1 = -1$

b) When $x = 2$, $y = 2(2) + 1 = 5$

c) When $x = 0$, $y = 1$, so the line crosses the y -axis at $(0, 1)$

4 Complete the table of values for $y = 2x$.

x	-2	-1	0	1	2
y					

Then plot the points on squared paper and join them with a straight line.

(2 marks)

Multiply each x by 2

$$2 \times -2 = -4$$

$$2 \times -1 = -2$$

$$2 \times 0 = 0$$

$$2 \times 1 = 2$$

$$2 \times 2 = 4$$

-4, -2, 0, 2, 4

5 Here is a table of values for $y = 3x - 4$

x : -1, 0, 1, 2, 3

y : ?, -4, -1, 2, ?

- Work out the two missing values of y .
- Does the point $(10, 26)$ lie on the line $y = 3x - 4$? You must show how you get your answer.

(3 marks)

a) When $x = -1$, $y = 3(-1) - 4 = -7$

When $x = 3$, $y = 3(3) - 4 = 5$

b) Substitute $x = 10$: $y = 30 - 4 = 26$, so $(10, 26)$ does lie on the line

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Complete the table of values for $y = 2x + 1$.

x	-1	0	1	2	3
y					

a. Write down the missing y values.

b. Write down the coordinates of the five points you would plot.

(3 marks)

a.)

$$x = -1: 2 \times -1 + 1 = -1$$

$$x = 0: 1$$

$$x = 1: 3$$

$$x = 2: 5$$

$$x = 3: 7$$

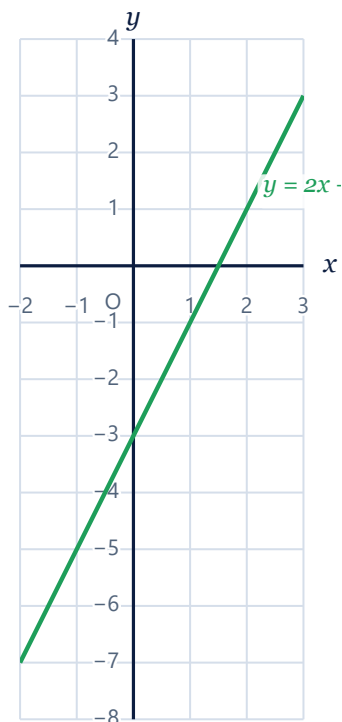
-1, 1, 3, 5, 7

b.)

$(-1, -1) (0, 1) (1, 3) (2, 5) (3, 7)$
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7

On the grid, draw the graph of $y = 2x - 3$ for values of x from -2 to 3



(3 marks)

Make a table of values

$x = -2$ gives $y = -7$, $x = 0$ gives $y = -3$, $x = 1$ gives $y = -1$, $x = 3$ gives $y = 3$

Plot the points and join them with a single straight line with a ruler

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Complete the table of values for $y = 3x - 2$.

x	-2	-1	0	1	2
y					

Then plot the points on squared paper and join them with a straight line.

(3 marks)

$$x = -2: 3 \times -2 - 2 = -8$$

$$x = -1: 3 \times -1 - 2 = -5$$

$$x = 0: 0 - 2 = -2$$

$$x = 1: 3 - 2 = 1$$

$$x = 2: 6 - 2 = 4$$

-8, -5, -2, 1, 4

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The line $y = 4 - x$ is to be drawn.

x	0	1	2	3	4
y					

a. Complete the table.

b. Does the point $(6, -3)$ lie on the line? Show how you know.

(3 marks)

a)

$$4 - 0 = 4$$

$$4 - 1 = 3$$

$$4 - 2 = 2$$

$$4 - 3 = 1$$

$$4 - 4 = 0$$

4, 3, 2, 1, 0

b)

$$x = 6: y = 4 - 6 = -2$$

No - y should be -2, not -3

10

Here is a table of values for $y = \frac{1}{2}x + 2$

x: -4, -2, 0, 2, 4

y: 0, ?, 2, ?, 4

a. Work out the two missing values of y.

b. Write down the gradient of the line.

(3 marks)

$$a) \text{ When } x = -2, y = -1 + 2 = 1$$

$$\text{When } x = 2, y = 1 + 2 = 3$$

$$b) \text{ The gradient is the coefficient of } x, \text{ which is } \frac{1}{2}$$

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These points should lie on the line $y = 2x - 3$.

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

One of the y values is wrong. Find it and write down the correct value.

(2 marks)

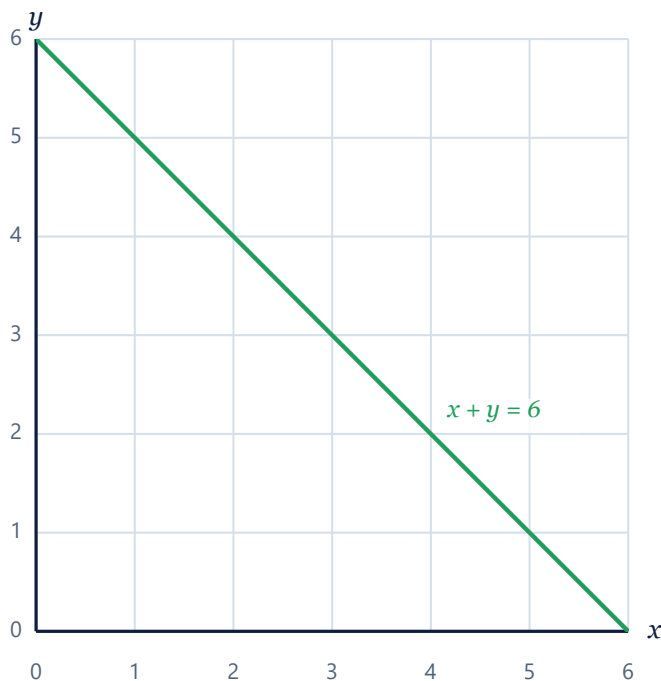
$$x = 3: 2 \times 3 - 3 = 3$$

Table says 4

$x = 3: y \text{ should be } 3$

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On the grid, draw the graph of $x + y = 6$ for values of x from 0 to 6



(3 marks)

Rearrange to $y = 6 - x$

When $x = 0$, $y = 6$. When $x = 3$, $y = 3$. When $x = 6$, $y = 0$

Plot the points and join them with a single straight line with a ruler

Straight line through (0, 6) and (6, 0)

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

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

a. Use the table to write down the value of x when $y = 9$.

b. Does the point (10, 22) lie on the line? Show how you know.

(3 marks)

a)

$y = 9$ is under $x = 3$

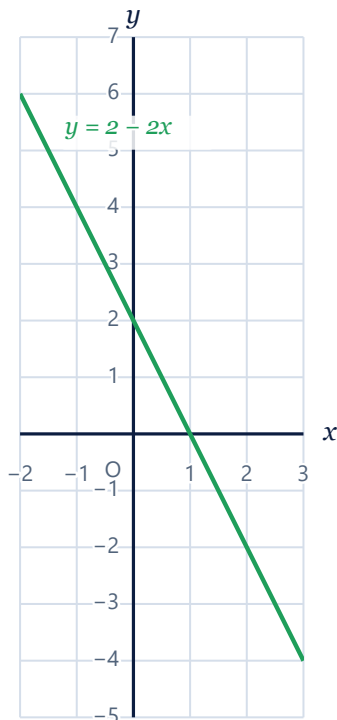
$x = 3$

b)

$x = 10$: $y = 2 \times 10 + 3 = 23$

No - y should be 23

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a. Complete the table of values for $y = 2 - 2x$ x : -2, -1, 0, 1, 2, 3 y : 6, ?, 2, 0, ?, -4b. On the grid, draw the graph of $y = 2 - 2x$ for values of x from -2 to 3

(4 marks)

a) When $x = -1$, $y = 2 - 2(-1) = 4$

When $x = 2$, $y = 2 - 2(2) = -2$

b) Plot all six points and join them with a single straight line with a ruler. The line slopes downwards from left to right

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

x	-4	-2	0	2	4
y					

Then plot the points on squared paper and join them with a straight line.

(3 marks)

$x = -4$: $-2 + 1 = -1$

$x = -2$: $-1 + 1 = 0$

$x = 0$: $0 + 1 = 1$

$x = 2$: $1 + 1 = 2$

$x = 4$: $2 + 1 = 3$

-1, 0, 1, 2, 3