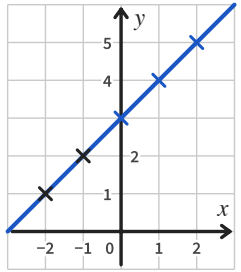
Plotting straight-line graphs

ANSWERS

1

Plot the points from the table for $y = x + 3$. Draw the line with a ruler.

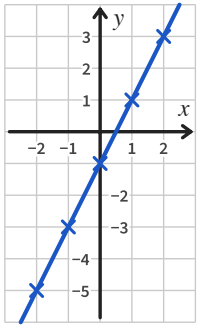
x	−2	−1	0	1	2
y	1	2	3	4	5



2

Complete the table for $y = 2x - 1$.
Draw the graph.

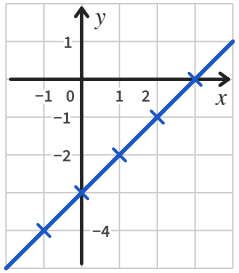
x	−2	−1	0	1	2
y	−5	−3	−1	1	3



3

Complete the table for $y = x - 3$.
Draw the graph.

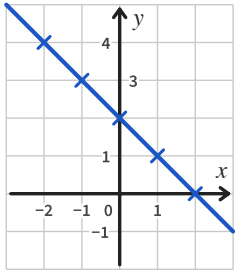
x	−1	0	1	2	3
y	−4	−3	−2	−1	0



4 *Notice the change!*

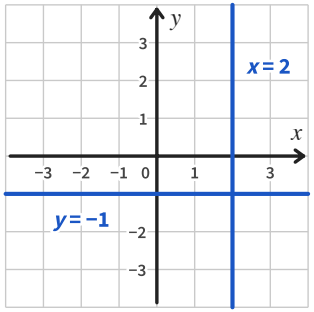
Complete the table for $y = 2 - x$.
Draw the graph.

x	−2	−1	0	1	2
y	4	3	2	1	0



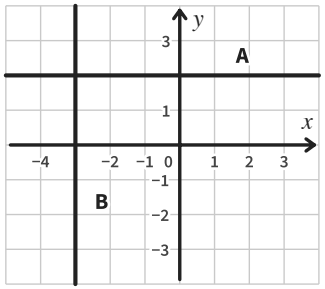
5

Draw the lines $y = -1$ and $x = 2$ on the grid. Label each line.



6

Write down the equation of line A and the equation of line B.



Line A y = 2

Line B x = −3

7

Maya makes this table for $y = 3x + 2$.
One value is wrong. Explain her mistake.
What should it be?

x	−1	0	1	2	3
y	5	2	5	8	11

3 × (−1) is −3, not 3

−3 + 2 = −1

At $x = -1$, $y =$ −1

8

Is the point **(5, 13)** on the line $y = 3x - 2$? Show how you know.

$x = 5$: 3 × 5 − 2 = 13

13 is the y of the point

On the line? Yes

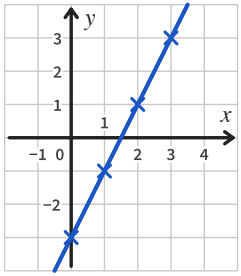
Plotting straight-line graphs *further practice*

ANSWERS

9

Make a table of values for $y = 2x - 3$ for x from 0 to 3. Draw the graph.

x	0	1	2	3
y	−3	−1	1	3

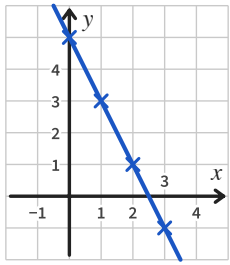


Graph: *on the grid*

10

Make a table of values for $y = 5 - 2x$ for x from 0 to 3. Draw the graph.

x	0	1	2	3
y	5	3	1	−1



Graph: *on the grid*

11

Which two of these lines are horizontal?

$y = 6$ $x = 6$ $y = 6x$ $y = -1$

y = a number goes across

Answer: *y = 6 and y = −1*

12

The lines $x = 3$ and $y = -2$ cross. Write down the coordinates of the point where they cross.

every point on x = 3 has x = 3

every point on y = −2 has y = −2

Answer: *(3, −2)*

13

Which of these points is not on the line $y = x + 4$?

A (1, 5) B (−2, 2)

C (3, 8) D (−6, −2)

at x = 3, y = 3 + 4 = 7, not 8

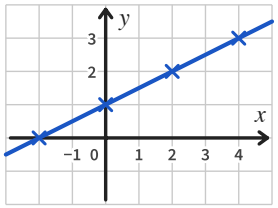
Answer: *C*

14

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

Draw the graph.

x	−2	0	2	4
y	0	1	2	3



half of −2 is −1, and −1 + 1 = 0

Graph: *on the grid*

15

Hiring a bike costs £4, plus £3 for each hour. The cost in pounds for h hours is $C = 3h + 4$. Complete the table. How much does it cost to hire the bike for 6 hours?

h	0	1	2	3	4
C	4	7	10	13	16

3 × 6 + 4 = 22

Cost: *£22*

16

The point $(a, 7)$ is on the line $y = 3x - 5$. Find the value of a.

3a − 5 = 7, so 3a = 12

check: 3 × 4 − 5 = 7

Answer: *a = 4*