

GCSE Maths: Horizontal and vertical lines, and drawing graphs from tables (Foundation): worksheet

GCSE Maths - Straight-Line Graphs and Coordinates - Foundation - Lesson 12.3

Name: _____

Date: _____

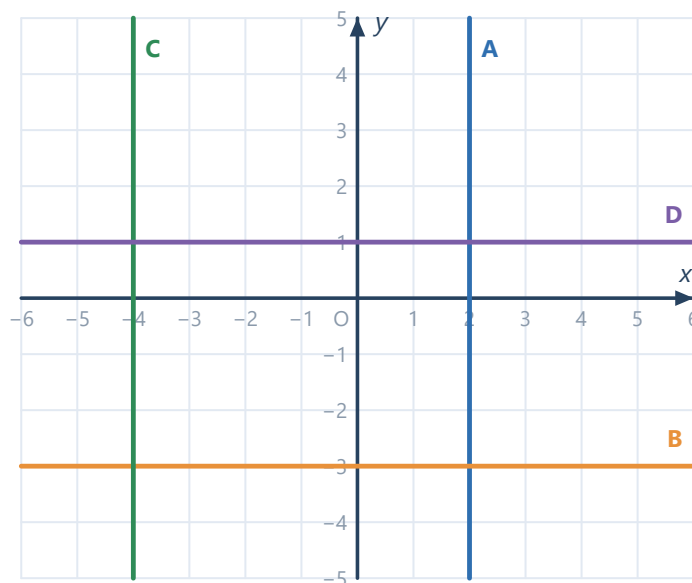
Score: _____

15 questions. Write your answers in the spaces. Answers and step-by-step help are free at websink.site/gcse/maths/ch12-straight-line-graphs-coordinates/foundation/horizontal-and-vertical-lines-and-drawing-graphs-from-tables/

Exercise 12D Horizontal and vertical lines, tables of values and drawing lines

Non-calculator

1 Write down the equation of each of the lines A, B, C and D.



(a) line A

Answer: _____

(b) line B

Answer: _____

(c) line C

Answer: _____

(d) line D

Answer: _____

2 Write down the equation of each line.

(a) The line is vertical and passes through $(-2, 4)$.

Answer: _____

(b) The line is horizontal and passes through $(3, 5)$.

Answer: _____

(c) The line is the x -axis.

Answer:

(d) The line is the y -axis.

Answer:

3 Complete the table of values for each equation.

(a) $y = x + 1$ for $x = 0, 1, 2, 3, 4$

Answer:

(b) $y = 2x$ for $x = -2, -1, 0, 1, 2$

Answer:

(c) $y = 3x - 1$ for $x = -1, 0, 1, 2, 3$

Answer:

(d) $y = -2x + 10$ for $x = 0, 1, 2, 3, 4$

Answer:

4 (a) Complete a table of values for $y = 2x + 1$ for $x = -2, -1, 0, 1, 2, 3$. (b) Draw the graph of $y = 2x + 1$.

Answer:

5 Draw the graph of $y = x - 2$ for values of x from -3 to 4 .

Answer:

6 Draw the graph of $y = 3 - x$ for values of x from -2 to 4 .

Answer:

7 Draw the graph of $y = 3x - 2$ for values of x from -1 to 3 .

Answer:

8 Draw the graph of $y = \frac{1}{2}x + 2$ for values of x from -4 to 4 . (Use even values of x .)

Answer:

9 (a) Draw the graph of $y = x$ on a grid from -3 to 3 . (b) Write down the coordinates of three points on the line. (c) What do you notice about the coordinates of every point on this line?

Answer:

10 Is each point on the line $y = 2x - 3$? Write yes or no and show your working.

(a) $(4, 5)$

Answer:

(b) $(-1, -5)$

Answer:

(c) $(0, 3)$

Answer:

(d) $(3, 2)$

Answer:

11 A line has equation $y = 3x + 2$. (a) Find the value of y when $x = 4$. (b) Find the value of x when $y = 11$.

Answer:

- 12** The points $(0, -1)$, $(1, 1)$ and $(2, 3)$ are on a straight line. Which equation is the equation of the line? A: $y = x - 1$ B: $y = 2x - 1$ C: $y = 2x + 1$

Answer:

- 13** Sam says the line $y = 3$ is a vertical line. Is he right? Give a reason.

Answer:

- 14** The lines $x = -2$, $x = 3$, $y = -1$ and $y = 3$ form a rectangle. Work out its perimeter and its area.

Answer:

- 15** Here is a table of values for a straight line.

x	0	1	2	3
y	1	4	7	11

One of the y values is wrong. Which one, and what should it be? Write the equation of the line.

Answer: