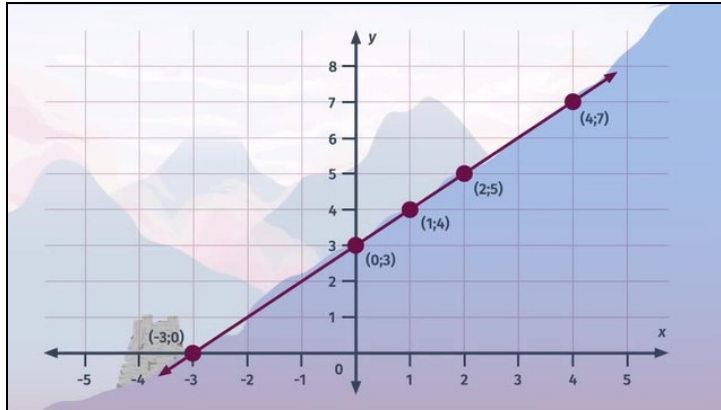


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# The Graph of a Linear Equation in Two Variables



- 1 Identify which table belongs to which graph.
- 2 Complete the table for the equation  $y + \frac{1}{2}x = 5$
- 3 Determine which statements about linear equations are true.
- 4 Find the table which belongs to each linear equation.
- 5 Graph the linear equation  $y - 2x = 2$ .
- 6 Determine which linear equation belongs to each graph.
- + with many hints, answer keys, and solution approaches for all tasks



The complete package, including all tasks, hints, solutions, and solution approaches, is available to all subscribers of [sofatutor.com](https://www.sofatutor.com)

## Identify which table belongs to which graph.

Match the elements.

x	y
1	1
2	2
3	3
4	4

A

x	y
1	1.5
2	3
3	4.5
4	6

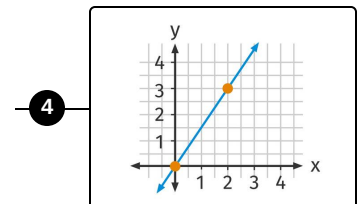
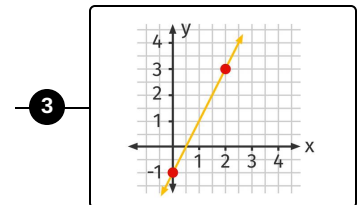
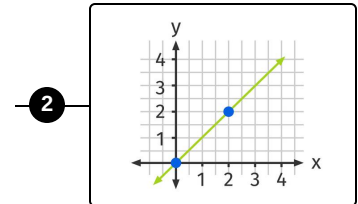
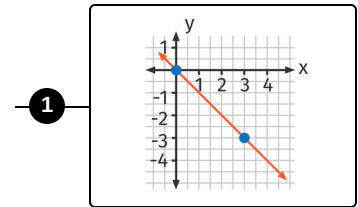
B

x	y
1	-1
2	-2
3	-3
4	-4

C

x	y
1	1
2	3
3	5
4	7

D



## Our hints for the tasks

1  
from 6

### Identify which table belongs to which graph.

#### 1. Hint

For each table, every row gives you an ordered pair  $(x, y)$ .

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#### 2. Hint

There is one decreasing line; its equation is  $y + x = 0$ .

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#### 3. Hint

The other equations are:

- $y - x = 0$
  - $y - 1.5x = 0$
  - $y - 2x = -1$
-

## Solutions and solution approaches for the tasks

1  
from 6

### Identify which table belongs to which graph.

**Answer key:** A—2 // B—4 // C—1 // D—3

Each row of a table gives you an ordered pair  $(x, y)$ . We can plot these points on the coordinate plane as follows:

- Draw a line parallel to the  $y$ -axis that passes through the  $x$ -coordinate of  $(x, 0)$ .
- Draw a line parallel to the  $x$ -axis that passes through the  $y$ -coordinate of  $(0, y)$ .
- The intersection of those lines is the point  $(x, y)$ .

Once you have plotted all of the points from the table, if you notice that they all lie on a line, you can connect all of the points to form this line.

We get the following lines:

- The first table belongs to the green line. The corresponding equation is given by  $y - x = 0$ .
- The second table belongs to the blue line and its equation is  $y - 1.5x = 0$ .
- The third table belongs to the red line and is represented by the linear equation  $y + x = 0$ .
- The fourth table belongs to the yellow line. The corresponding equation is given by  $y - 2x = -1$ .