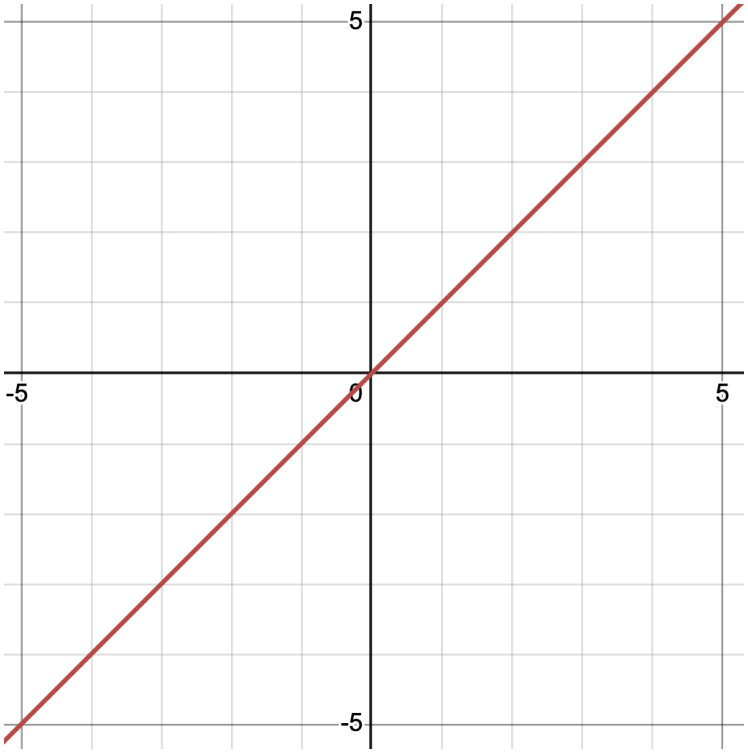
Graphing:

Graphing takes practice, and it involves plotting points. One should practice graphing and plotting points on paper. The exercise builds familiarity with many types of parent functions and their graphs. The equations get more complicated as one moves deeper into math, being able to quickly see a vague shape of the graph helps with moving faster through a standardized test. It also helps one peer deeper into the logic as a teacher explains the concepts in real time. “A farmer uses a tractor, but a farmer still goes to the gym, too.”

Consider:

$y = x$.



Notice the red diagonal. A coordinate pair is expressed as: (*x* , *y*) .
The parenthesis and comma are important, please include them so the reader knows you are writing about a point on the graph.

Start at the *origin*. The origin is the intersection of the x and y axis (the two black lines). The x-axis is the horizontal line (drawn left to right). The y-axis is the vertical line (drawn up to down).

If we march 1 to the left and up 1. We land on the red line at (1, 1).
If we march 2 to the left and up 2. We land on the red line at (2, 2).

Let's make a chart of test points:

x	*y*
1	1
2	2
3	3
0	0
-1	-1

The *domain* is defined as the set of all inputs (the numbers in the x column).

The *range* is defined as the set of all outputs (the numbers in the y column).

Memorize the definitions of domain and range.