

Goal: I will be able to _____

Tool Bag

Formulas,
equations,
vocabulary, etc.

Linear Function

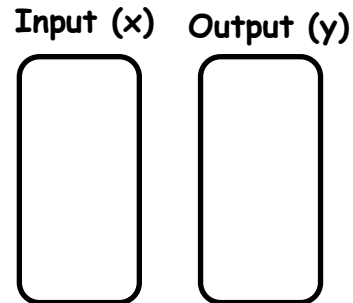
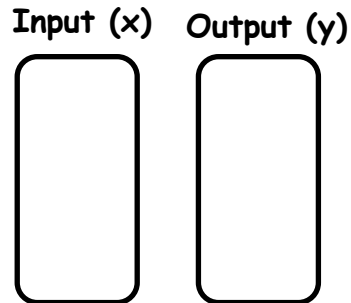
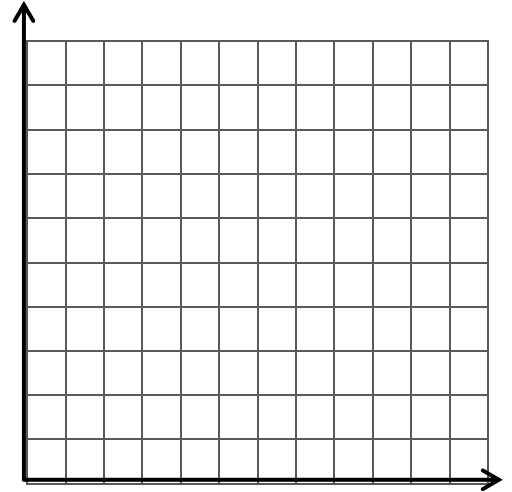
Plot Points

1. $\{(1,5), (2,7), (3,9), (4,11)\}$
2. $\{(0,0), (1,1), (2,4), (3,9)\}$

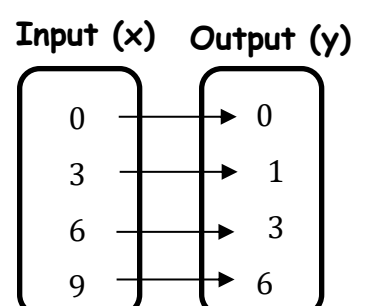
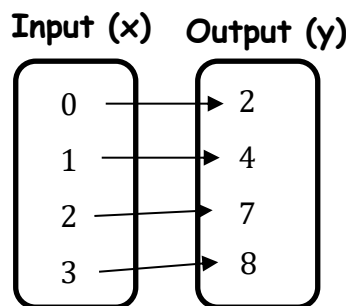
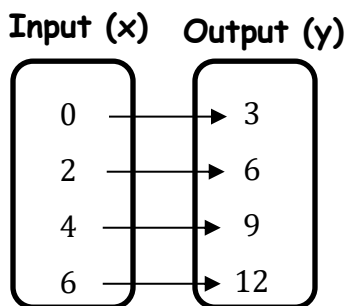
Do they go in a straight line?

Use the vertical line test to see if it is a function.

Here's How...Notes & Examples



Which of the following are linear functions?

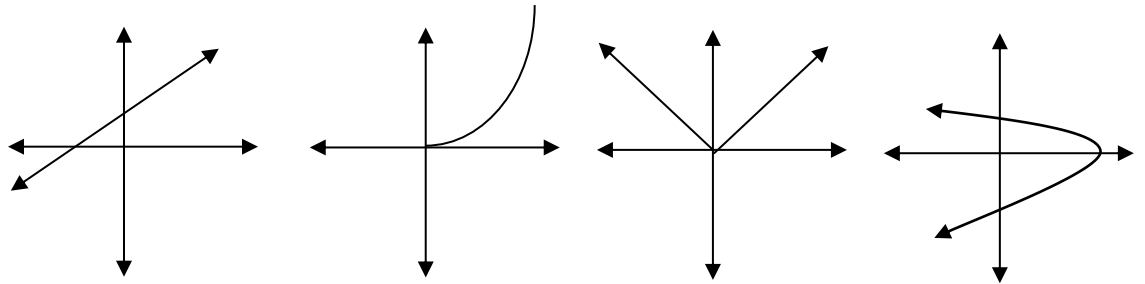


If it is linear, what is the rate of change?

Non Linear Functions

Examples

Which of the following are nonlinear functions?



Which of the following are nonlinear functions?

Input	Output
1	-8
2	-16
3	-24
4	-32
5	-40

Input	Output
1	1.5
2	2.5
3	5.5
4	8.5
5	10.5

Input	Output
1	1
2	3
3	6
4	10
5	15

You Try

Suppose there are 20 rabbits on an island and that rabbit population can triple every 6 months.

a. Make a table to determine the rabbit population after 2

b. Is the relationship linear or nonlinear?

c. Using the table, when would you expect the population to be 1,000,000?