

Functions

What are functions?

A set of range values that each have a unique domain.

What is the domain?

All of the x-values.

What is the range?

All of the y-values.

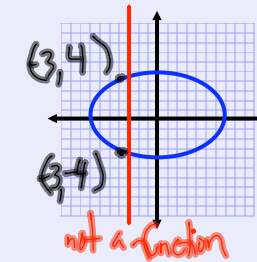
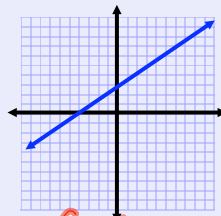
Identify the domain and the range.

$\{(-4,1), (-1,6), (0,-3), (2,2), (7,0)\}$

Domain: $\{-4, -1, 0, 2, 7\}$

Range: $\{1, 6, -3, 2, 0\}$

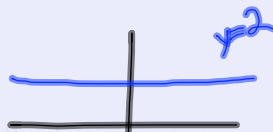
Which of these graphs is a function?



Use the vertical line test!

What is the vertical line test?

Move a vertical line from left to right on each graph. If the line touches the graph more than once at any time, the graph is not a function.



Each y-value can only have one x-value.

If the x's repeat, it's not a function!

What makes a relation a function?

Which relation is a function?

x	y
0	2
1	2
2	2
3	2
4	2

x	y
-3	1
2	6
0	0
2	-3
5	1

$\{(-2,1), (-1,-4), (0,6), (3,-2)\}$

yes!

no!

Summary: