

Lesson 3.3.1: Intro to Absolute Value

Targets:

1. I understand how to solve absolute value equations.
2. I understand how to graph absolute value functions.

Warm Up:

Go to Khan Academy and work on the activity called “Finding Absolute Values.”
Make sure you get 5 right in a row before moving on from here.

Practice 1

Solve each one variable equation.

a. $|x| = 6$

b. $|x - 5| = 4$

c. $2|x + 3| = -10$

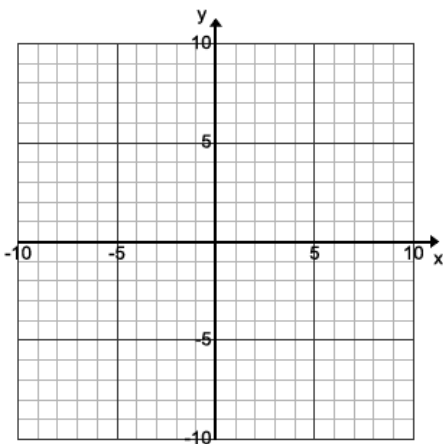
Practice 2

Complete the table for each two variable equation. Then plot the points on the coordinate plane.

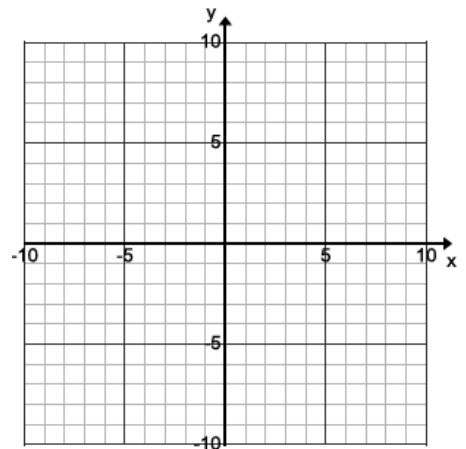
a. $y = |x|$

b. $y = |x - 5|$

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



x	y
1	
2	
3	
4	
5	
6	
7	



c. Write a brief summary comparing and contrasting the two solution sets and their graphs.

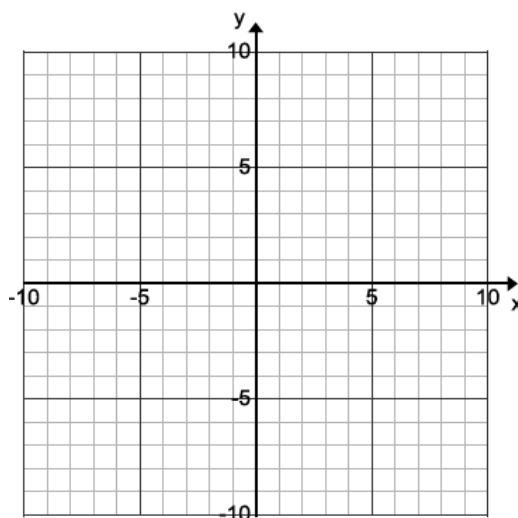
d. What is the domain and range of $f(x) = |x|$?

Practice 3

Complete the table for the two variable equation. Then plot the points on the coordinate plane.

$$x = |y|$$

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



Could you define this graph/equation as a function? Explain your reasoning?

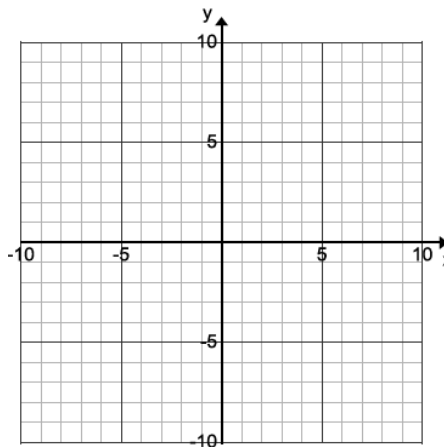
Exit Ticket

1.) Solve each one variable equation.

a.) $|2x - 5| = 11$

b.) $-3|x + 6| = -12$

2.) Graph the following function: $f(x) = |x + 2|$



3.) Jennifer says that the graph of all absolute value functions will be in the shape of a “V”.

a.) Do you agree or disagree?

b.) Justify your answer.