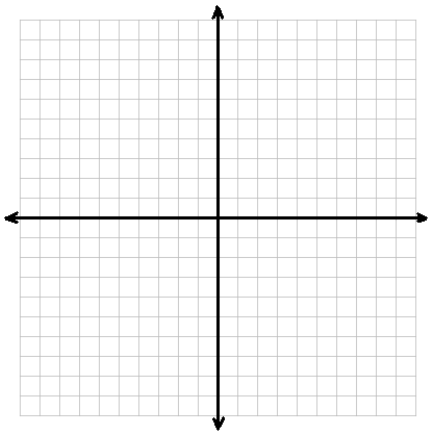
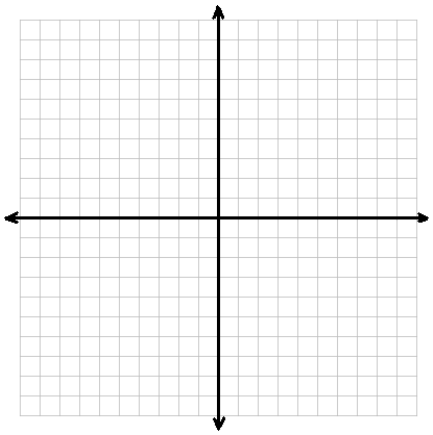
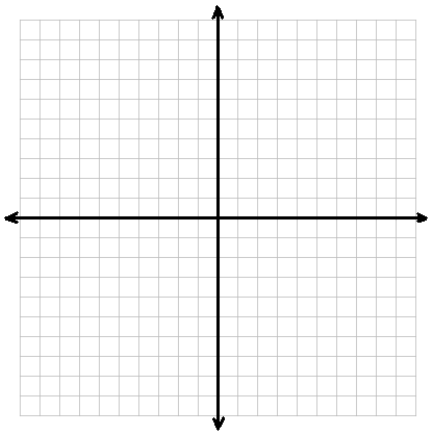
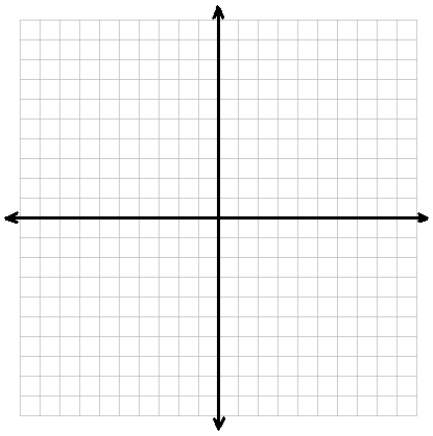
Name: _____ Date: _____ **Unit 3 Class Work**

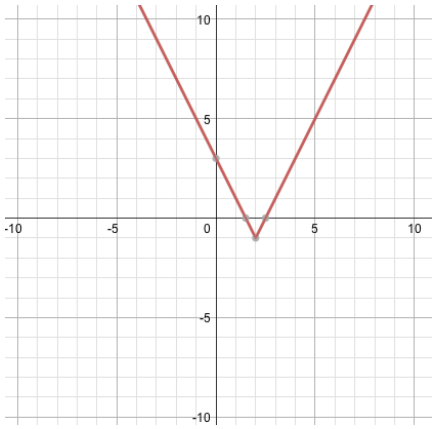
Graphing Absolute Value Functions Continued [Group A]

Directions: Graph each absolute value function. Then state the domain and range for each. You may work with anyone in group A.

$f(x) = \left\|\frac{1}{2}x + 3\right\| - 5$  Domain: Range:	$f(x) = -\left\|-x - 3\right\| + 8$  Domain: Range:
$f(x) = \frac{1}{2}\left\|3x - 6\right\| - 2$  Domain: Range:	$f(x) = \left\|2x\right\| + 4$  Domain: Range:

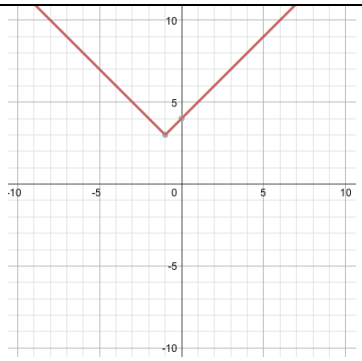
When you are done… You have group B's answers on the back of this page! Find someone from group B (they have your solutions), and check each other's work. Let me know if you have any questions. Then see if you can come up with a generalization for the domain and range of absolute value functions! ☺

Group B's Solutions:



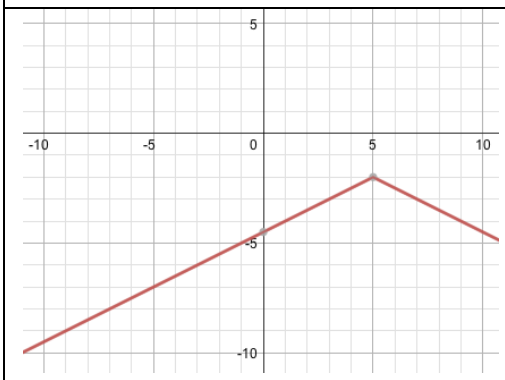
Domain: $(-\infty,\infty)$

Range: $[-1\infty)$



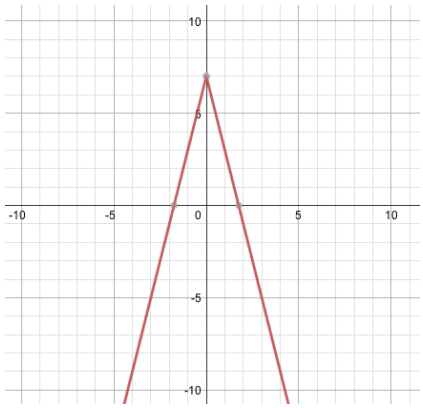
Domain: $(-\infty,\infty)$

Range: $[3,\infty)$



Domain: $(-\infty,\infty)$

Range: $(-\infty,-2]$



Domain: $(-\infty,\infty)$

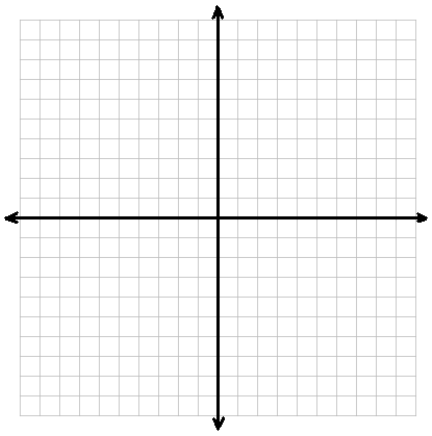
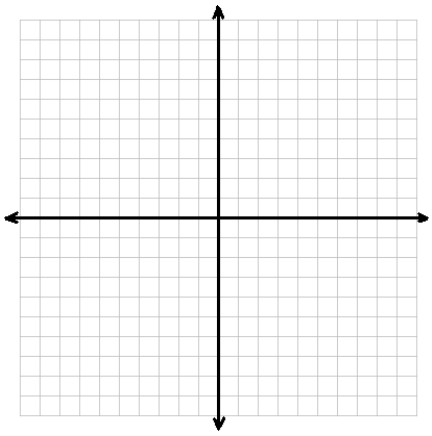
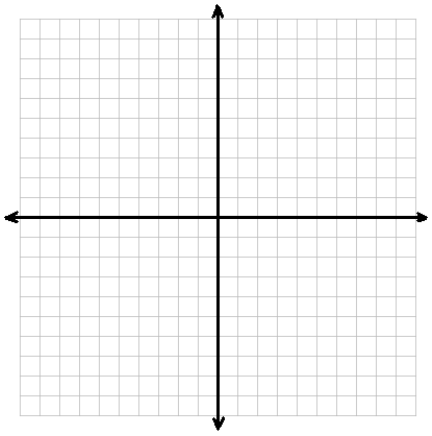
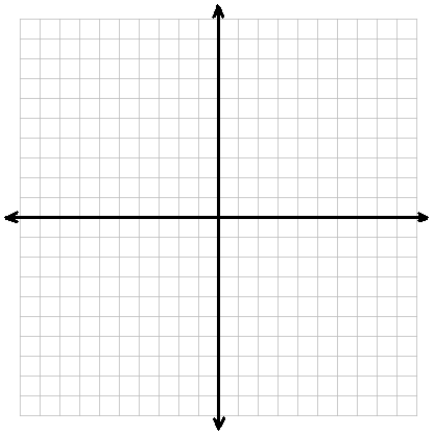
Range: $(-\infty,7]$

★ ***What generalizations can you make regarding the domain and range of absolute value functions?***

Name: _____ Date: _____ **Unit 3 Class Work**

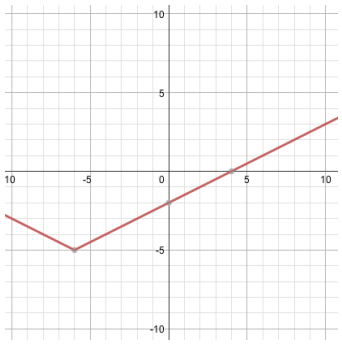
Graphing Absolute Value Functions Continued [Group B]

Directions: Graph each absolute value function. Then state the domain and range for each. You may work with anyone in group B.

f(x) = |2x - 4| - 1  Domain: Range:	f(x) = |x +1| + 3  Domain: Range:
f(x) = -½|x - 5| - 2  Domain: Range:	f(x) = -|4x| + 7  Domain: Range:

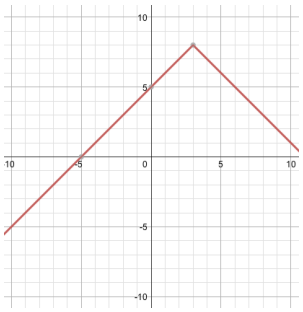
When you are done… You have group A's answers on the back of this page! Find someone from group A (they have your solutions), and check each other's work. Let me know if you have any questions. Then see if you can come up with a generalization for the domain and range of absolute value functions! ☺

Group A's Solutions:



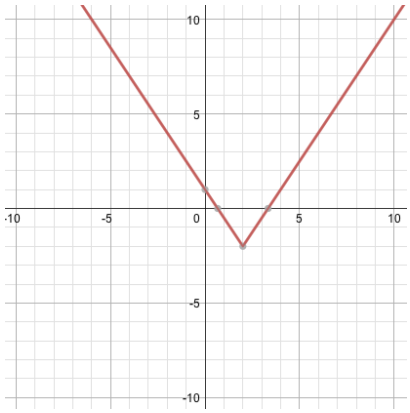
Domain: $(-\infty, \infty)$

Range: $[-5, \infty)$



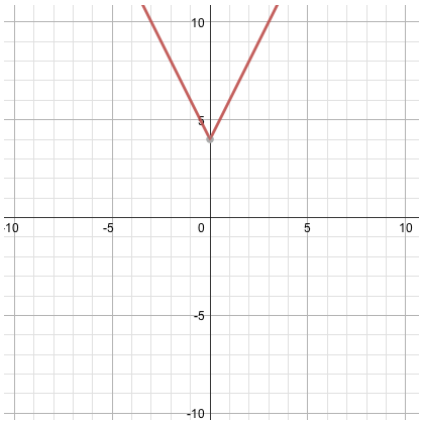
Domain: $(-\infty, \infty)$

Range: $(-\infty, 8]$



Domain: $(-\infty, \infty)$

Range: $[-2, \infty)$



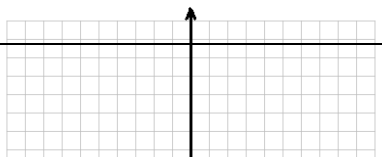
Domain: $(-\infty, \infty)$

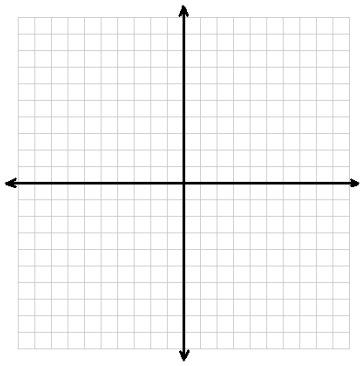
Range: $[4, \infty)$

★ ***What generalizations can you make regarding the domain and range of absolute value functions?***

_____ created these functions, and

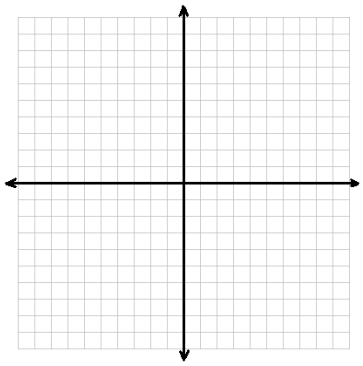
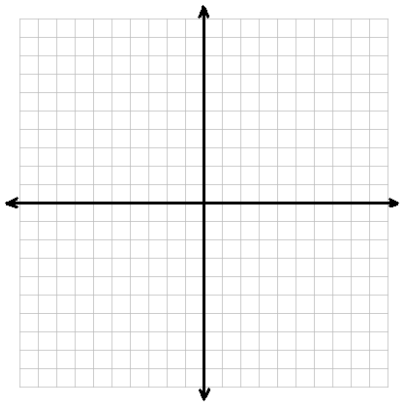
_____ graphed/identified the functions.

Choose any values for A, B, C, and D to create an absolute value function.	***Sketch a graph of any absolute value function (make sure the slope is 1).***
	

Graph the absolute value function from the equation above! 	***Write the equation for the pictured function:***

_____ created these functions, and

_____ graphed/identified the functions.

Choose any values for A, B, C, and D to create an absolute value function. ***Graph the absolute value function from the equation above!*** 	***Sketch a graph of any absolute value function (make sure the slope is 1).***  ***Write the equation for the pictured function:***