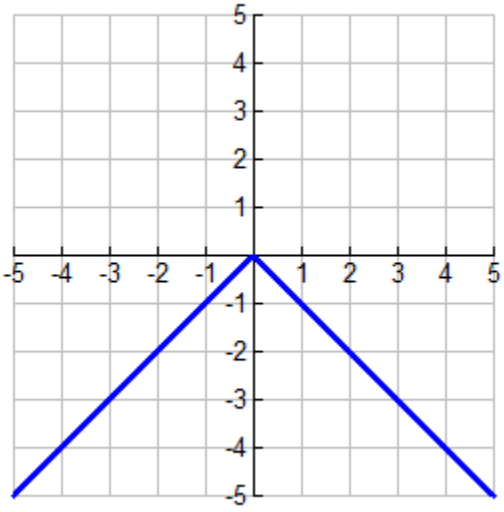
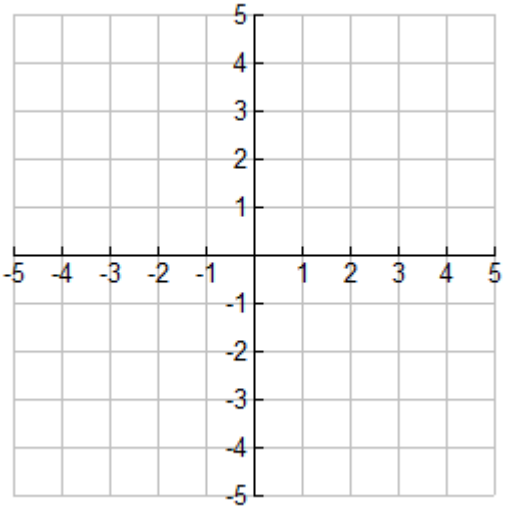
Algebra 1 Name _____ Date _____

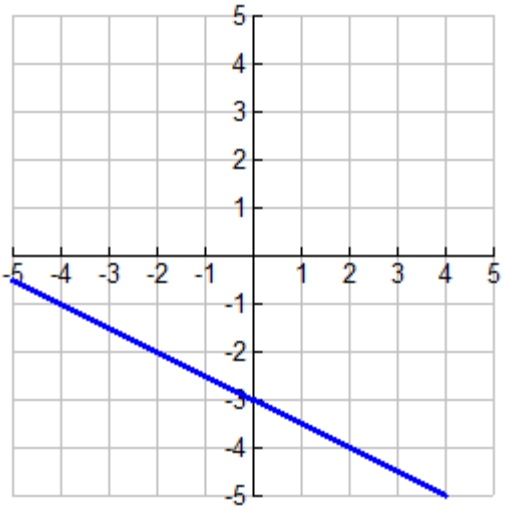
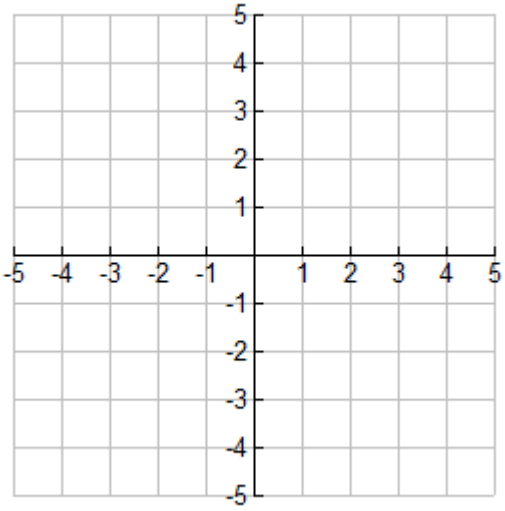
Unit 1 - Introduction to Graphing – HOMEWORK H

Part 1: Given an original function and a transformation, write the equation of the new function.

	Function	Put X in PARENTHESIS	Transformation	Change in INPUT and/or OUTPUT	New Function
1.	f(x) = -2x		Up 1		
2.	$y = -x^2$		Down 3		
3.	y = |x+1|		Left 3		
4.	$f(x) = \sqrt{x}$		Right 2		
5.	$y = x^2$		Right 1 and Down 1		
6.	f(x) = |x|		Left 3 and Up 8		

Part 2: Given the graph of a function and a transformation, produce the graph of the transformation.

	Function	Transformation	New Function
1.	 Function: y = -| x |	Left 1 Down 3	 Write the new function: y = _____

	Function	Transformation	New Function
2.	 Function: y = 0.5x – 3	Up 3	 Write the new function: y = _____

Part 3: Given the table of values for a function and a transformation, fill in the new table of values of the transformation.

	Table of Values	Transformation	New Table of Values
5.	x | f(x) 0 | 0 1 | 1 2 | 4 3 | 9 4 | 16	Left 5 Down 6	x | f(x) -5 | -4 | -5 | | 3 |
6.	x | f(x) 0 | 0 1 | 1 4 | 2 9 | 3 16 | 4	Up 4	x | f(x) 0 | | | 6 9 | | 8