Working with Transformations Worksheet

Complete the following table. Check your graphs by using DESMOS!

Equation	a-value	<i>b</i> -value	Transformations	Sketch
y = -x + 3	-1	3	 Reflection across the x-axis Vertical translation 3 units up 	-5 -4 -3 -2 -1 0 1 2 3 4 5 x - 2 - 3 - 3 - 4 - 5 - 5
y = 2x - 3	2	-3	 Vertical stretch by a factor of 2 Vertical translation 3 units down 	-5 -4 -3 -2 -1 0 1 2 3 4 5
y = 0.75x	0.75	0	 Vertical compression by a factor of 0.75 	-5 -4 -3 -2 -1 0 1 2 3 4 5 -1 -1 -2 -2 -3 -3 -4 -5 -5
y = x + 4	1	4	Vertical translation4 units up	-5 4 -3 -2 -1 0 1 2 3 4 5 -1 -2 -2 -3 -4 -5 -5

Equation	a-value	<i>b</i> -value	Transformations	Sketch
y = -x - 3	-1	-3	 Reflection across the x-axis Vertical translation 3 units down 	y-5 4 3 2 1 -5 -4 -3 -2 -1 0 1 2 3 4 5 -1 -1 -2 -2 -3 -4 -5
y = 0.5x + 2	0.5	2	 Vertical compression by a factor of 0.5 Vertical translation 2 units up 	y-5 4 3 3 1 1 1 2 3 4 5 -1 -1 -2 -3 -4 -5
y = -x - 2	-1	-2	 Reflection across the x-axis Vertical translation 2 units down 	y-5 4 3 3 2 1 1 1 2 3 4 5 -1 -1 -2 -3 -4 -5
y = -0.25x	-0.25	0	 Reflection across the x-axis Vertical compression by a factor of 0.25 	y-5 4 3 2 1 1 -5 -4 -3 -2 -1 0 2 3 4 5 -1 -2 -3 -4 -5 -5