

NAME:

Key

DATE:

A2.Q1.BERMEL:

GRAPHING FUNCTIONS

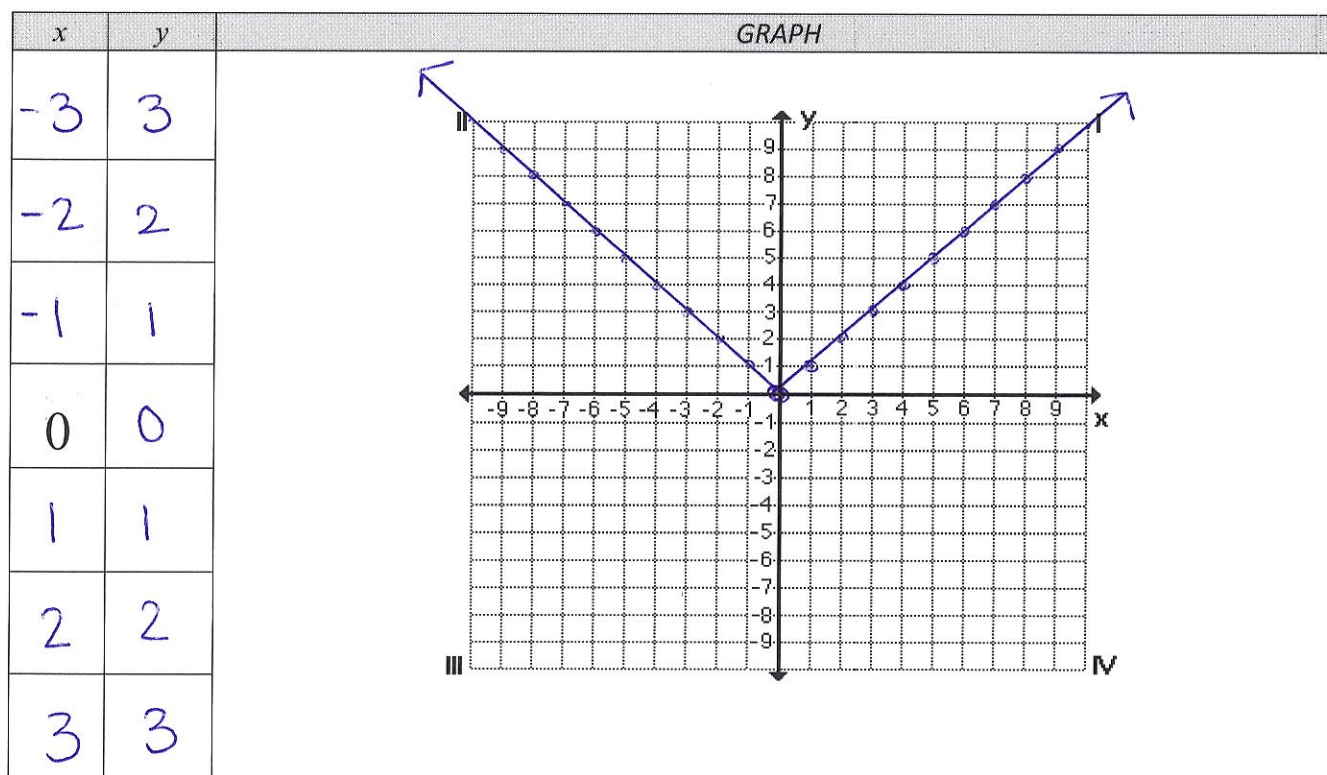
(DAY G2)

NOTES

TRANSFORMATIONS OF THE PARENT ABSOLUTE VALUE FUNCTION

*NO CALCULATORS*PARENT: $f(x) = |x|$

TABLE OF VALUES AND GRAPH:

VERTEX: $(0, 0)$ SLOPE RATIO: $\frac{1}{1}$ rise
run

4. NEW FUNCTION: $f(x) = \frac{1}{2}|x-3|+2$

Horizontal Translation: shift right 3

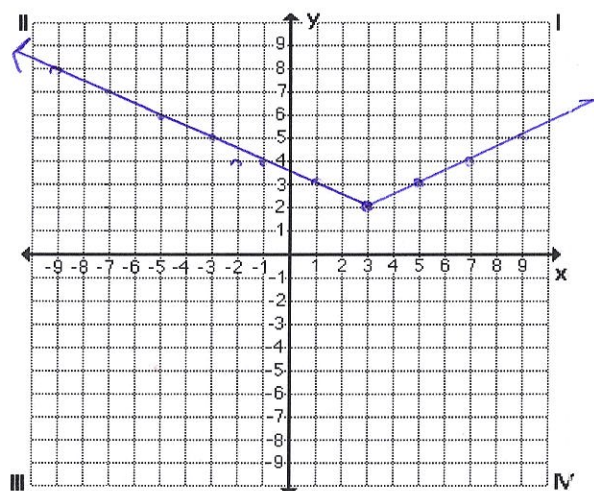
Dilation: vertical compression $\times \frac{1}{2}$

Slope Ratio: $\frac{1}{2}$

Reflection: no

Vertical Translation: shift up 2

Vertex: $(3, 2)$



5. NEW FUNCTION: $f(x) = -\frac{1}{3}|x|$

Horizontal Translation: none

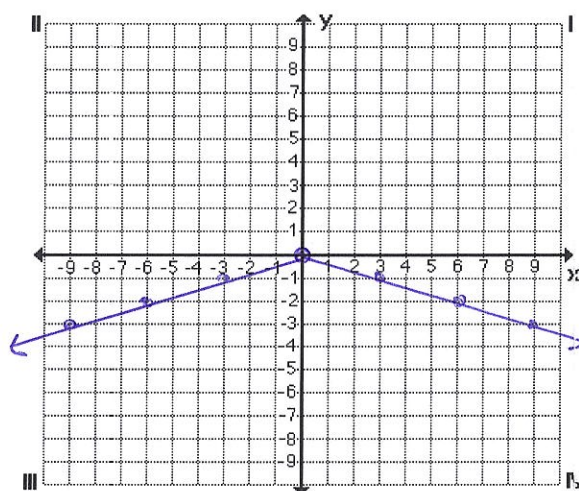
Dilation: vertical compression $\times \frac{1}{3}$

Slope Ratio: $\frac{1}{3}$

Reflection: yes

Vertical Translation: none

Vertex: $(0, 0)$



6. NEW FUNCTION: $f(x) = -\frac{1}{2}|x-3|+6$

Horizontal Translation: shift right 3

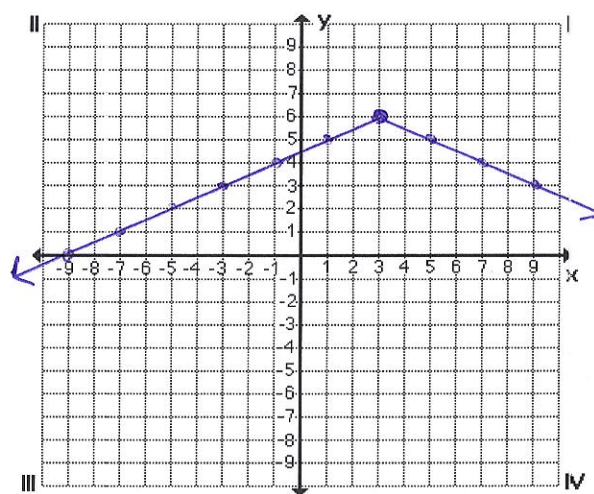
Dilation: vertical compression $\times \frac{1}{2}$

Slope Ratio: $\frac{1}{2}$

Reflection: yes

Vertical Translation: shift up 6

Vertex: $(3, 6)$



1. NEW FUNCTION: $f(x) = -|x+5|+3$

Horizontal Translation: shift left 5

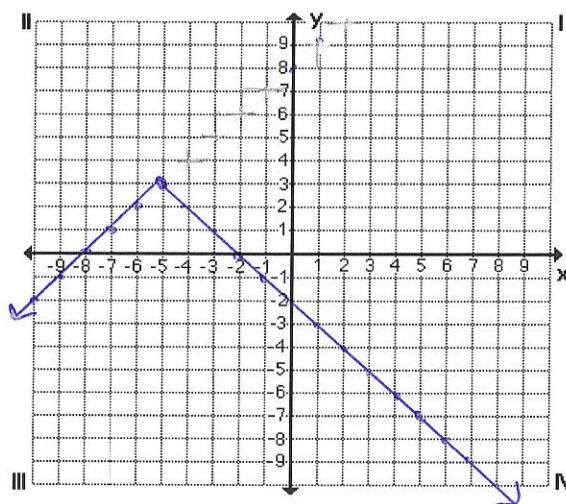
Dilation: none

Slope Ratio: $\frac{1}{1}$

Reflection: yes

Vertical Translation: shift up 3

Vertex: $(-5, 3)$



2. NEW FUNCTION: $f(x) = 2|x|-4$

Horizontal Translation: none

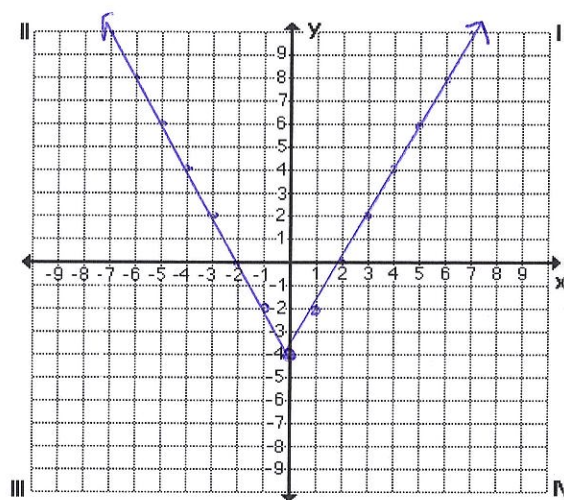
Dilation: vertical stretch x2

Slope Ratio: $\frac{2}{1}$

Reflection: no

Vertical Translation: shift down 4

Vertex: $(0, -4)$



3. NEW FUNCTION: $f(x) = -2|x+4|$

Horizontal Translation: shift left 4

Dilation: vertical stretch x2

Slope Ratio: $\frac{2}{1}$

Reflection: yes

Vertical Translation: none

Vertex: $(-4, 0)$

