

Absolute Value Functions

1. Identify the vertex, the steepness of the function, and the direction of opening of the given absolute value functions:

a. $y = |x + 2| - 5$

b. $y = -2|x - 6| + 4$

c. $y = -|x| - 8$

d. $y = -.06|x - 3|$

e. $y = -|x + 1| - 1$

2. Write an absolute value function given the following points:

a. Has a vertex at (3,8) and opens down

b. Has a vertex at (0, -3) and has rays with slopes of 4

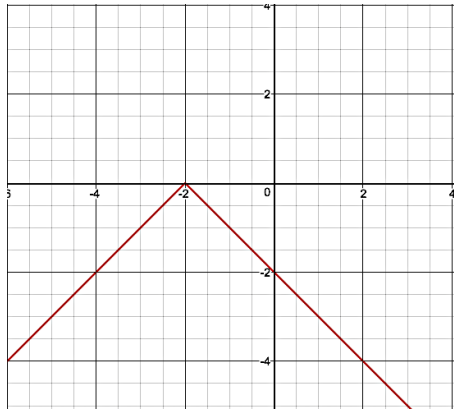
c. Has a vertex at (-3, -2) that opens up and has a slope of -2

d. Has a vertex at (0,0) that opens down with a slope of 5

e. Has vertex at (9, -8) that has rays with slopes of $\frac{3}{4}$

3. Given the graph of the absolute value function, identify the vertex, direction opening, and the slopes of the rays. Then write the equation of each function.

a.



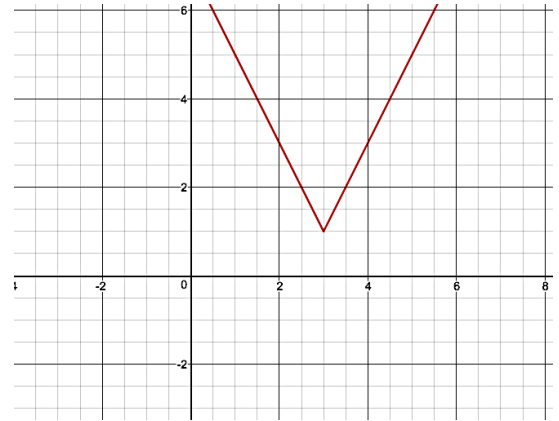
Vertex:

Slopes of rays:

Direction of opening:

Equation:

b.



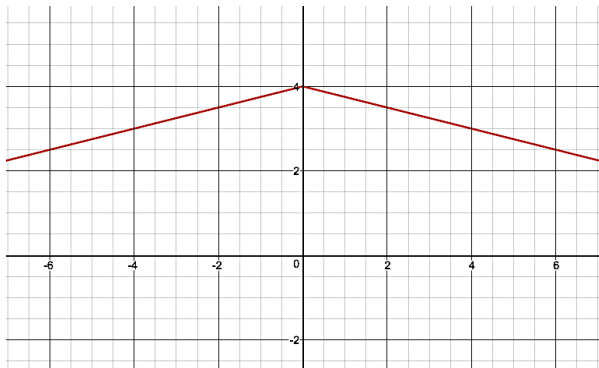
Vertex:

Slopes of rays:

Direction of opening:

Equation:

c.



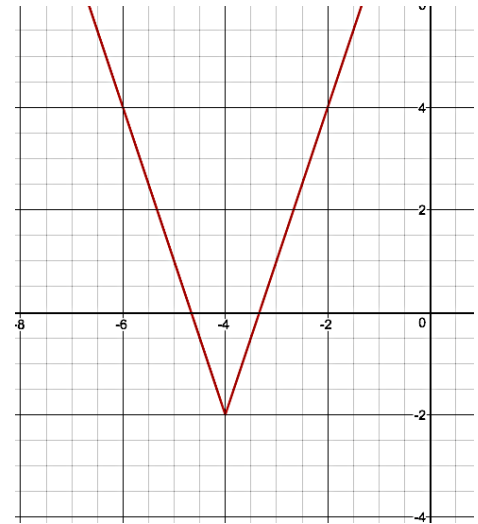
Vertex:

Slopes of rays:

Direction of opening:

Equation:

d.



Vertex:

Slopes of rays:

Direction of opening:

Equation: