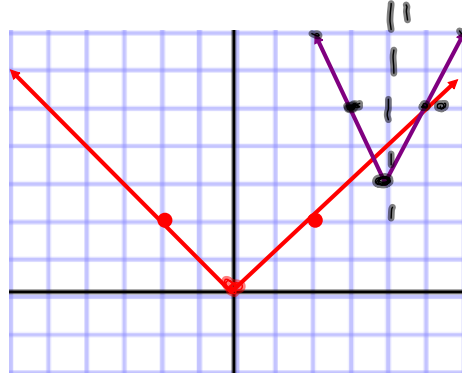


Graphing Absolute Value Functions

The graph of $y = a|x - h| + k$ has the following characteristics:

- The graph has vertex (h, k) and is symmetric in the line $x = h$.
- The graph is V-shaped. It opens up if $a > 0$ and down if $a < 0$.
- The graph is wider than the graph of $y = |x|$ if $|a| < 1$.

The graph is narrower than the graph of $y = |x|$ if $|a| > 1$.



$$y = |x|$$

$$y = 2|x - 4| + 3$$

To graph an absolute value function you may find it helpful to plot the vertex and one other point. Use symmetry to plot a third point and then complete the graph.

Oct 2-12:30 PM

Graphing Absolute Value Functions

The graph of $y = a|x - h| + k$ has the following characteristics:

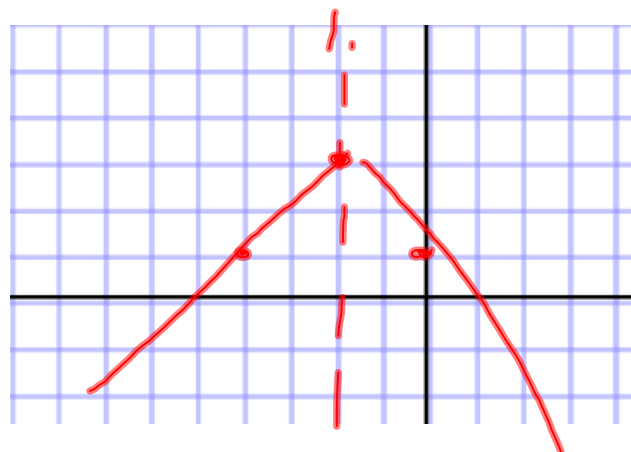
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The graph is narrower than the graph of $y = |x|$ if $|a| > 1$.

Graph $y = -|x + 2| + 3$

Vertex $(-2, 3)$

x	y
0	1



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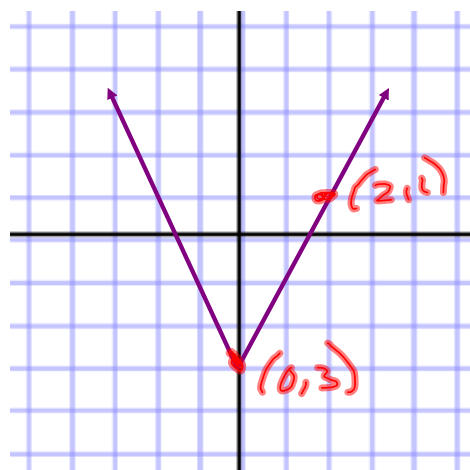
Graphing Absolute Value Functions

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Write an equation of the graph shown.

$$y = 2|x| - 3$$



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Assignment

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12-25 all

Quiz (2.6-2.8) Wed.

Oct 2-1:03 PM