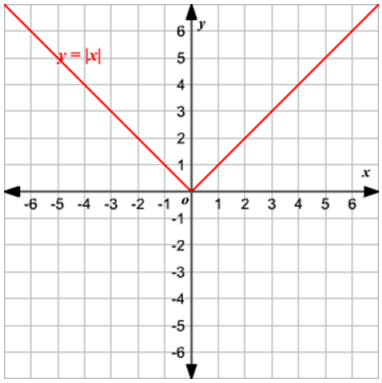
4.4 A- Graphing Absolute Functions



standard form f(x) = a|x - h| + k

Facts about graphing absolute value

1) Look like a V or Λ

2) abs ( ) in graphing calculator
| | when writing

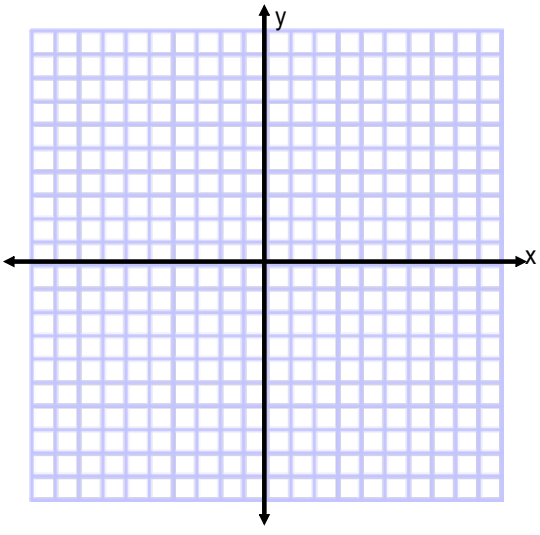
3) Considered a piecewise function

$$f(x) = |x| = \begin{cases} x, & \text{if } x \geq 0 \\ -x, & \text{if } x < 0 \end{cases}$$

4) the tip of the V is called the vertex

5) the axis of symmetry is a line that goes through the vertex and creates a mirror image.

Nov 29-1:50 PM



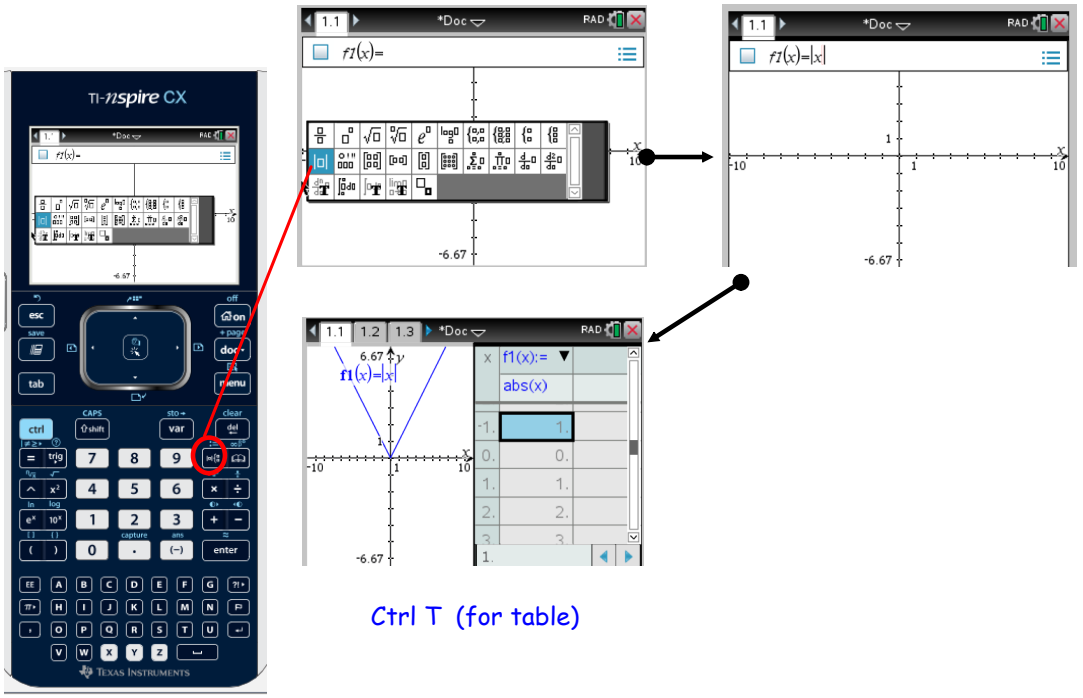
Graph the absolute function, identify the vertex.
Graph and label the axis of symmetry.

y = | x |

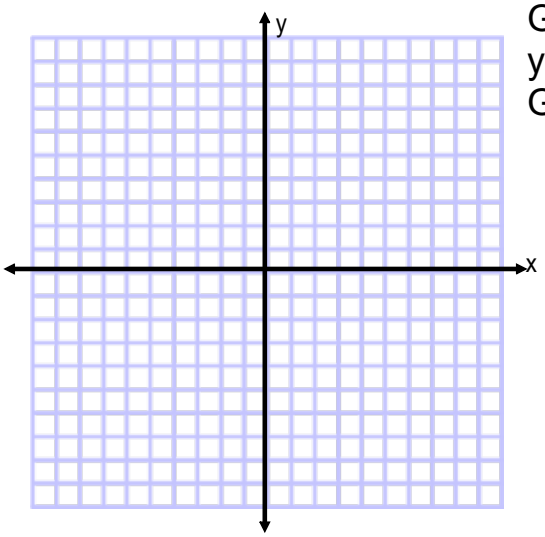
x	y

Oct 29-12:24 PM

4.4A Graphing Absolute functions notes



Dec 15-9:38 AM



Graph the absolute value function without your calculator, identify the vertex. Graph and label the axis of symmetry.

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

x	y

Nov 14-5:23 PM

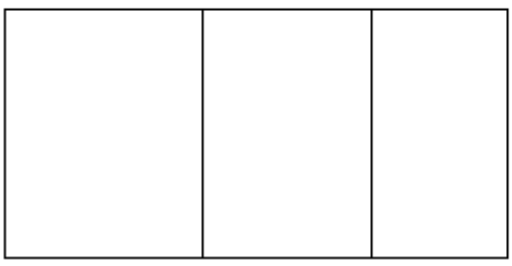
standard form $f(x) = a|x - h| + k$

On you calculator, keep $f_1(x) = |x|$
Complete the following.

Graph	what happend?	vertex
$f_2(x) = |x| + 1$		
$f_2(x) = |x| - 3$		
$f_2(x) = |x + 2|$		
$f_2(x) = |x - 4|$		
$f_2(x) = |x - 4| + 1$		
$f_2(x) = -|x|$		

Jan 12-12:36 PM

$$f(x) = a|x - h| + k$$



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