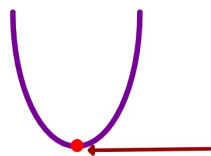


Graphs of Parabolas and V-shapes

Quadratic Functions

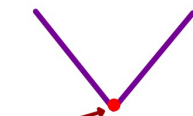
$$y = a(x-h)^2 + k$$

$$y = ax^2 + bx + c$$



Absolute Value Functions

$$y = a|x - h| + k$$



Vertex

$$y = a(x-h)^2 + k$$

$$y = ax^2 + bx + c$$

$$y = a|x - h| + k$$

opens
up



$$a > 0$$



opens
down

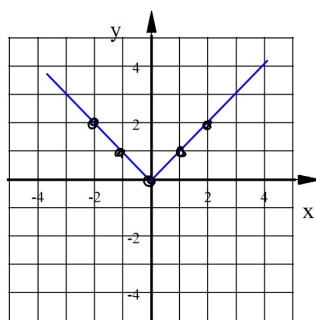


$$a < 0$$



The Parent Function $y = |x|$

x	y
-2	2
-1	1
0	0
1	1
2	2



What is the vertex of the
Parent Function?

(0,0)

What is the slope of the sides
of the Parent Function?

right side: slope = +1

left side: slope = -1