

General Form of the Absolute Value Function

Stretches/compresses
Makes Narrow or Wide

h
opposite
sign

Translates
left or right

Translates
up or down

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

k
same
sign

a is the
“slope”
of the line

h is the
x-coordinate
of the
vertex point

k is the
y-coordinate
of the
vertex point



(remember the formula
has a negative sign in it)

The stretch or compression factor is $|a|$

The vertex is located at (h, k)

The axis of symmetry is the line $x = h$.