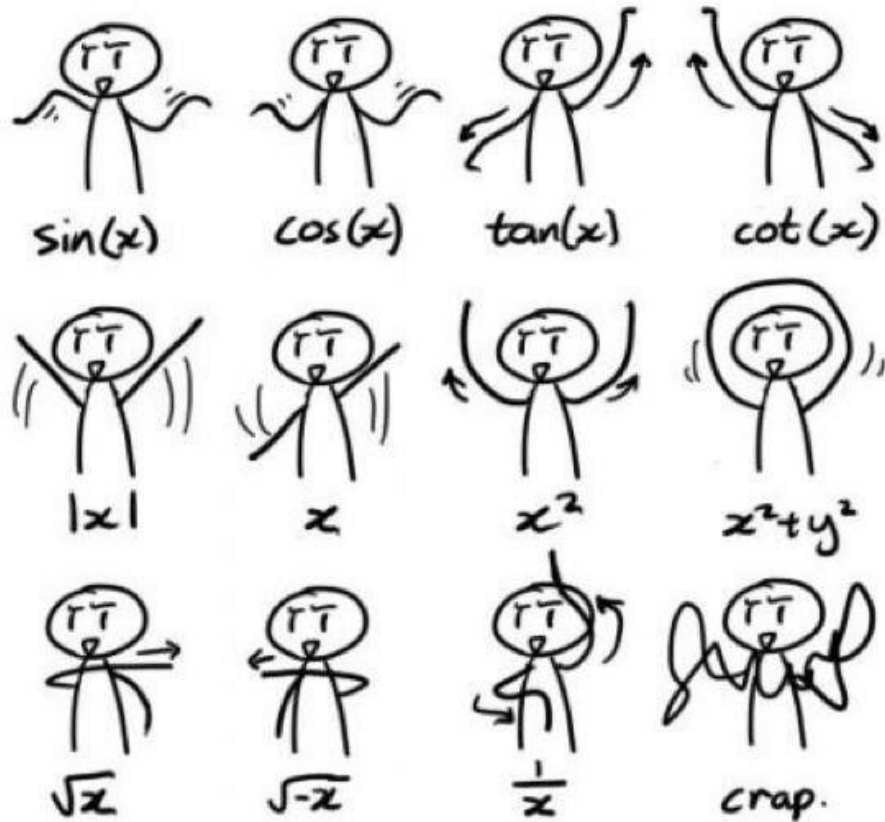


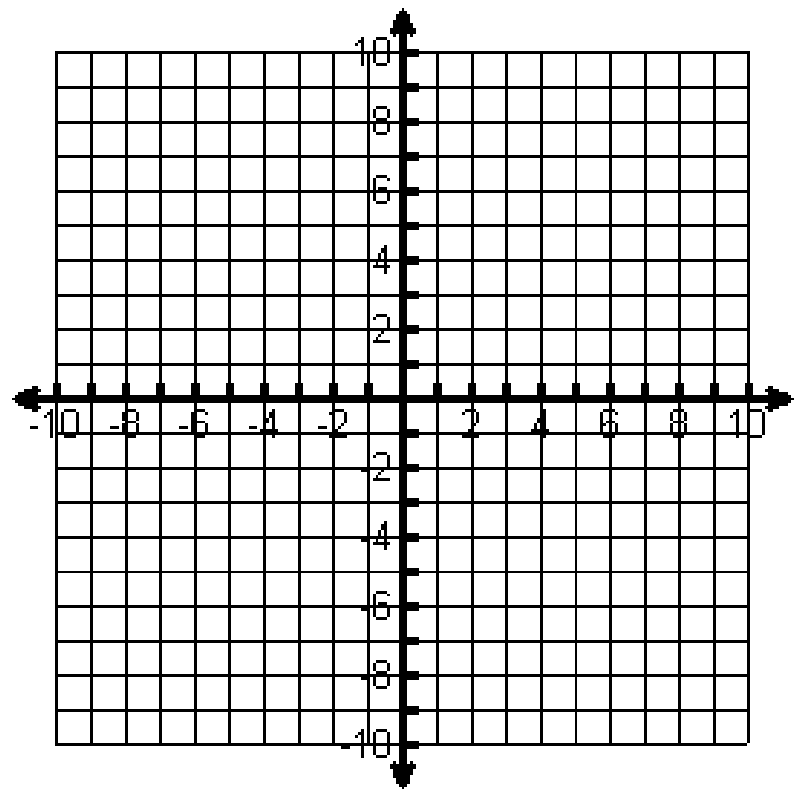
Parent Graphs

Beautiful Dance Moves



Graphing Quadratics in Vertex Form

$$f(x) = x^2$$



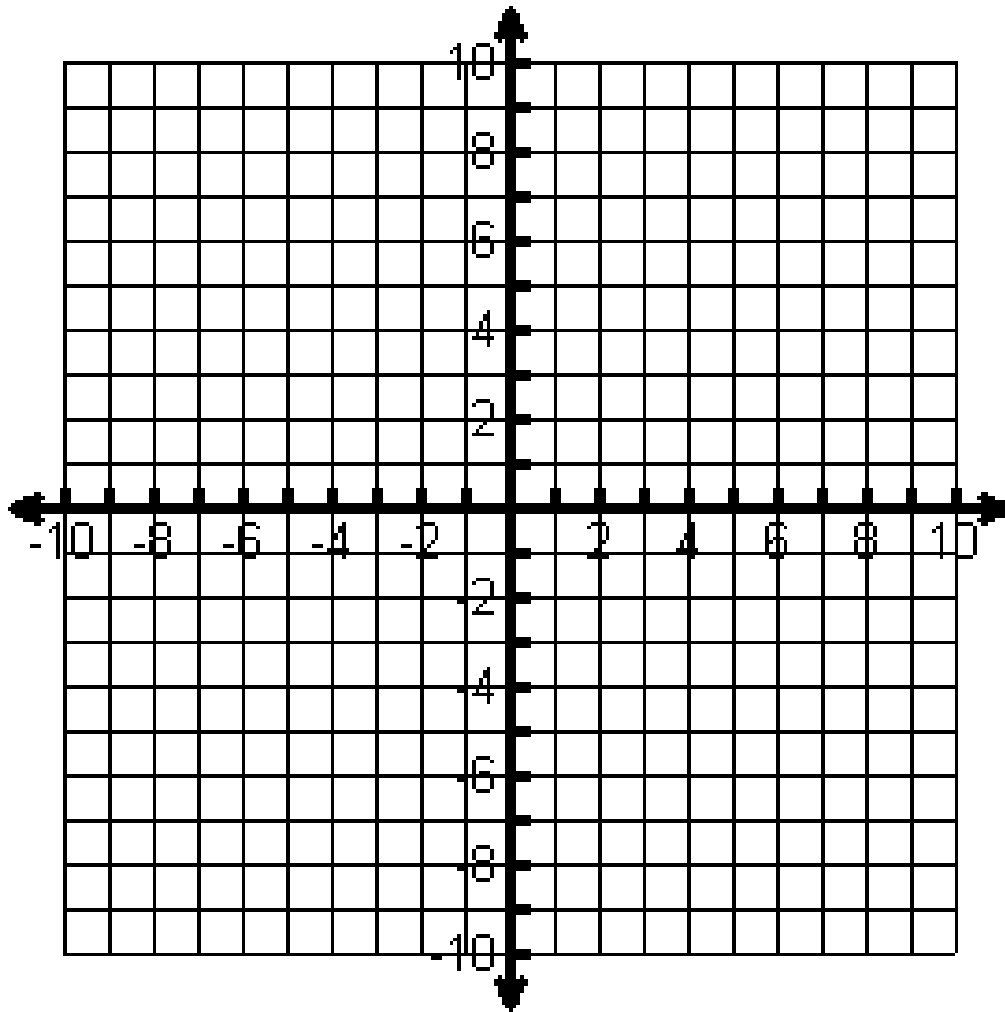
This is known as the parent graph

Vertex Form for Quadratics

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

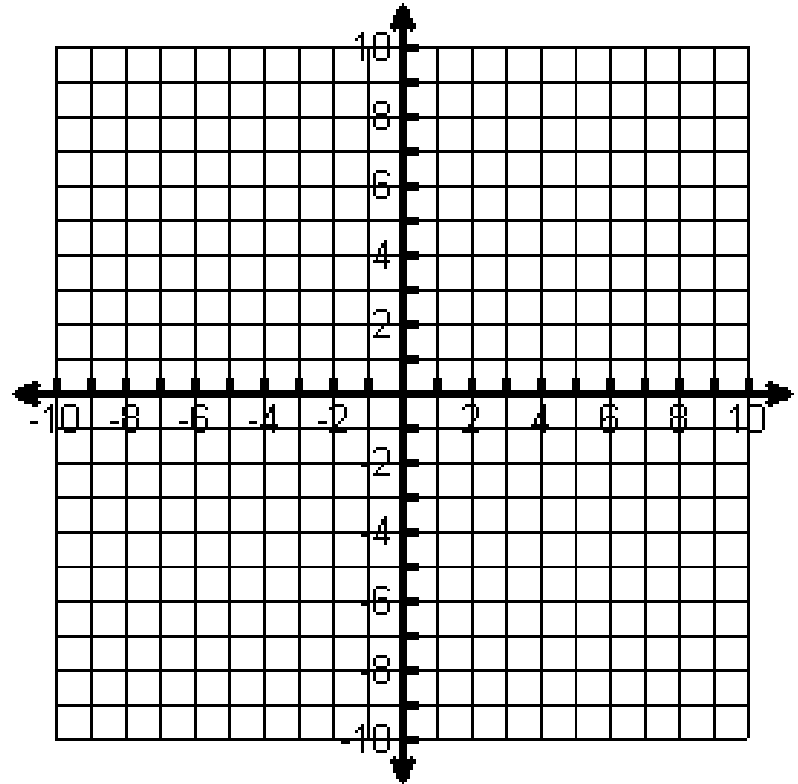
Graph from the equation:

$$f(x) = -2(x - 1)^2 + 3$$



Graphing Absolute Value

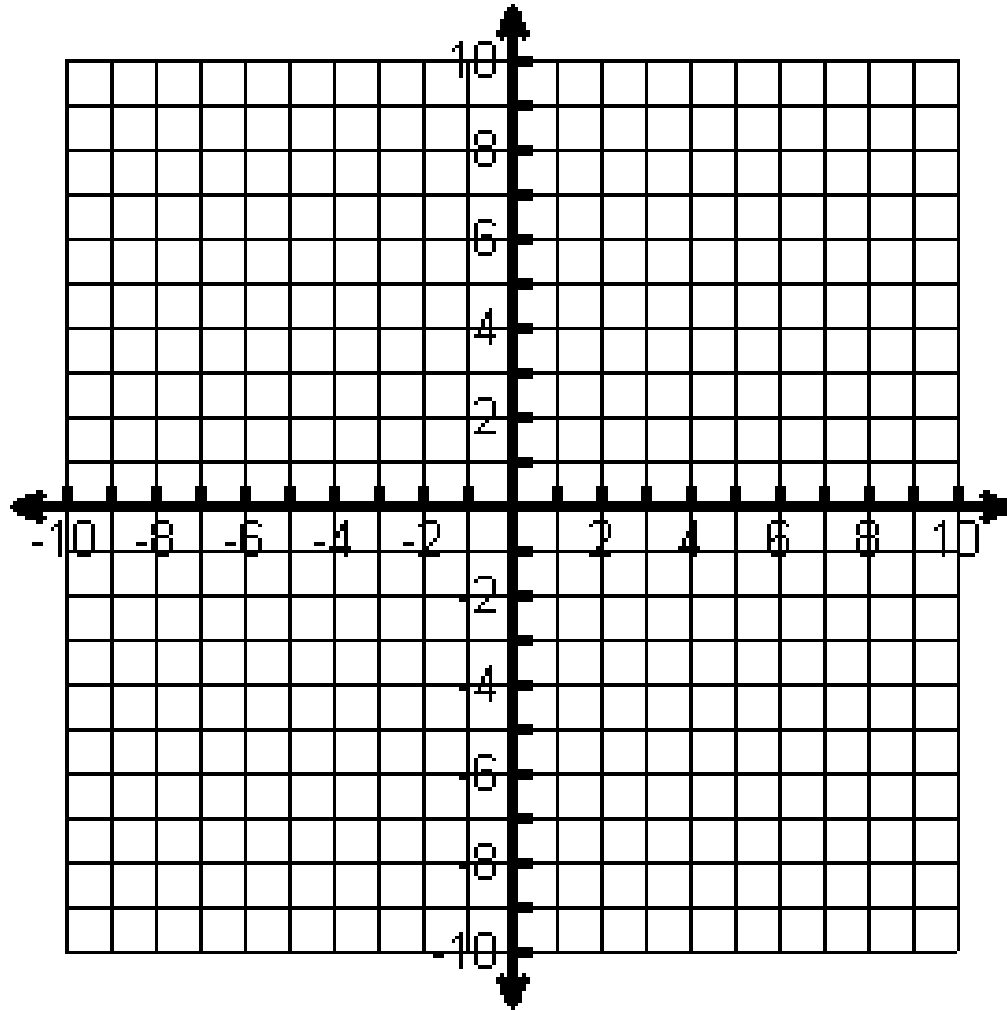
$$f(x) = |x|$$



This is known as the parent graph

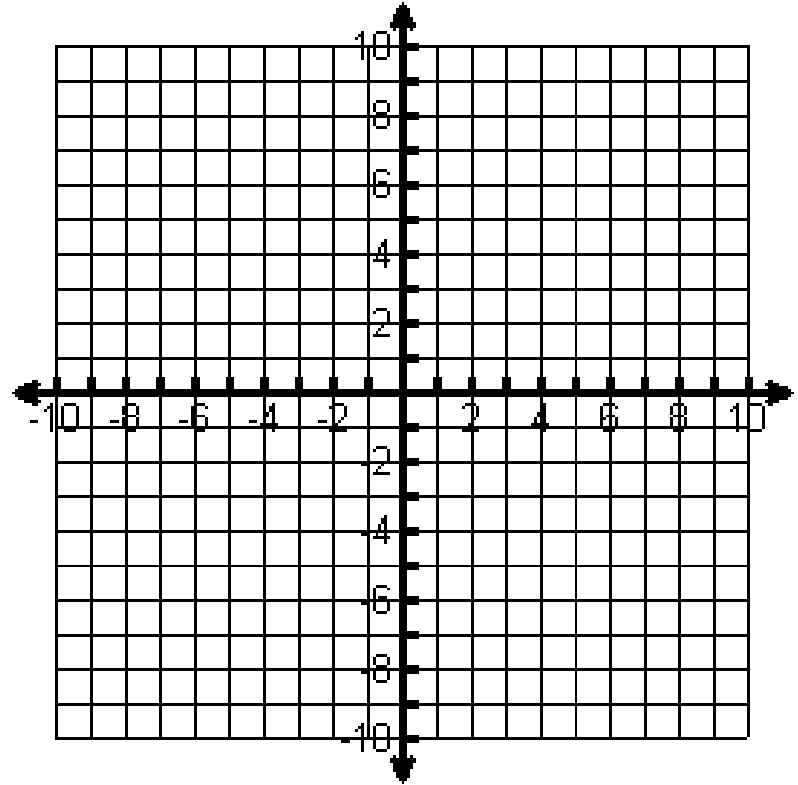
Graph from the equation:

$$f(x) = \frac{1}{2}|x + 2| - 5$$



Graphing Square Roots

$$f(x) = \sqrt{x}$$



This is known as the parent graph

Radical Functions - Transformations

$$f(x) = a\sqrt{b(x-h)} + k$$

Know the transformations

Radical Functions - Transformations

$$f(x) = a\sqrt{b(x-h)} + k$$

When “**a**” is negative: Reflect over the x-axis

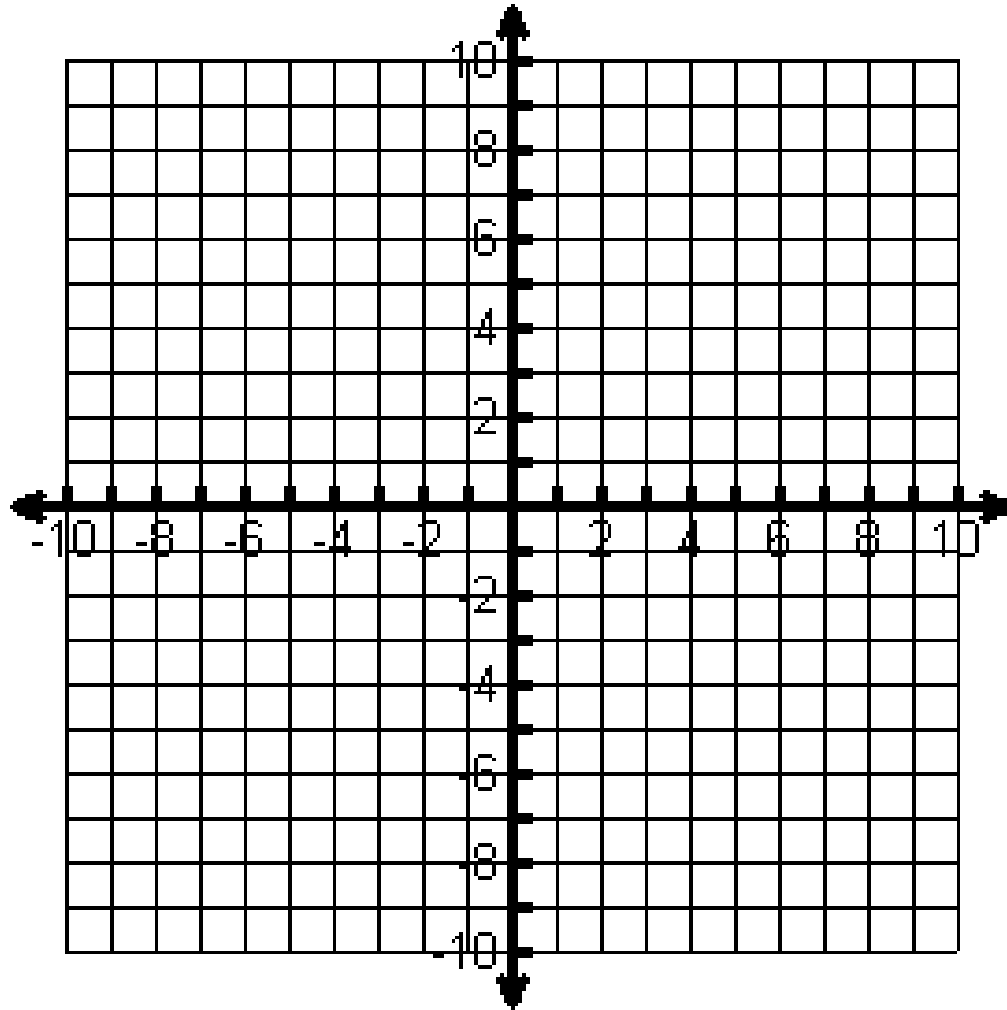
****Negative on the outside – it “x-caped”****

When “**a**” is a fraction between 0 and 1:
Vertical Shrink (Compression)

When “**a**” is a number greater than 1:
Vertical Stretch

Graph from the equation:

$$f(x) = -2\sqrt{(x+8)} - 2$$



Radical Functions - Transformations

$$f(x) = a\sqrt{b(x-h)} + k$$

****Inside the radical, opposite of what you think****

When “**b**” is negative: **Reflect over the y-axis**

****Negative on the inside – “y” am I in here?***

When “**b**” is a fraction between 0 and 1:
Horizontal Stretch

When “**b**” is a number greater than 1:
Horizontal Shrink (Compression)

Graph from the equation:

$$f(x) = \sqrt{-2(x - 8)} - 2$$

