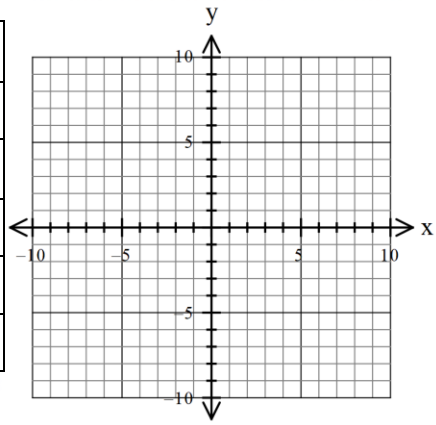
Parent Function #3

Name of Graph: _____

Equation: _____

x	$f(x)$



Key Features

Domain:

Range:

x-intercept(s):

y-intercept:

Increasing:

Decreasing:

Constant:

Positive:

Negative:

Maximums /Minimums

Symmetry:

End Behavior:

$\lim_{x\to-\infty} f(x) =$

$\lim_{x\to\infty} f(x) =$

Shape of Graph: _____

Vertex: _____

Standard form:

Inverse function:

Transformation general equation:

Vertex form:

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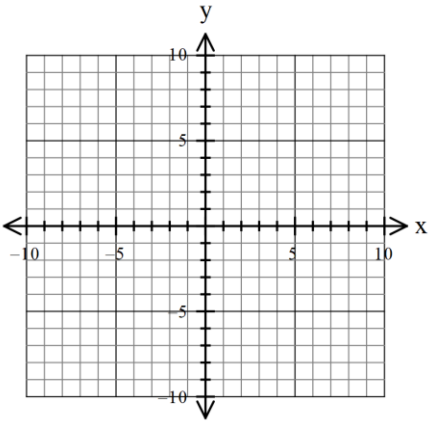

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Steps for solving a quadratic equation:

Way 1 steps

1. Get the squared variable or parentheses by itself
2. Take the square root of both sides of the equation
   **Don't' forget to put the $\pm$
3. Solve for the variable

EX. $12 = 2(4x - 1)^2 - 6$

EX. $6x^2 - 6 = 5x$

Way 2 steps

1. Set equation equal to 0 and put in standard form
2. Factor or use quadratic formula
   Q.F.: $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
3. If factoring then solve for the variable
   If using Q.F. then evaluate

EX. $2x^2 + 5x = 4$

How to Find the Vertex:

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