

Notes: Finding the Solution to Quadratic Equations

What is the solution to a quadratic equation?

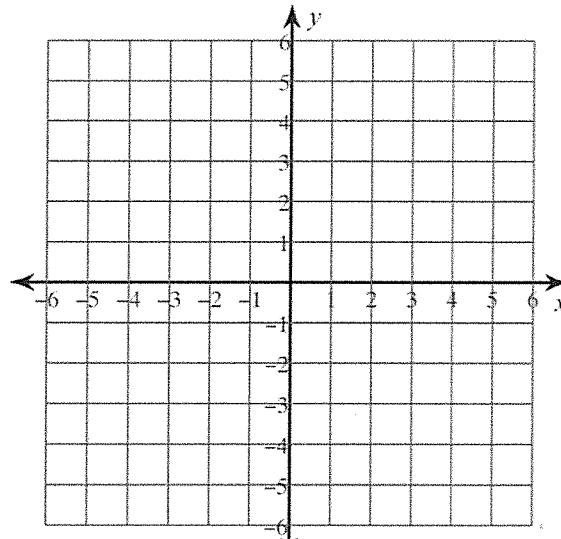
List as many different versions of solutions as you can.

Solve the following quadratic equations by graphing.

$$y = x^2 + 4x + 3$$

x	y

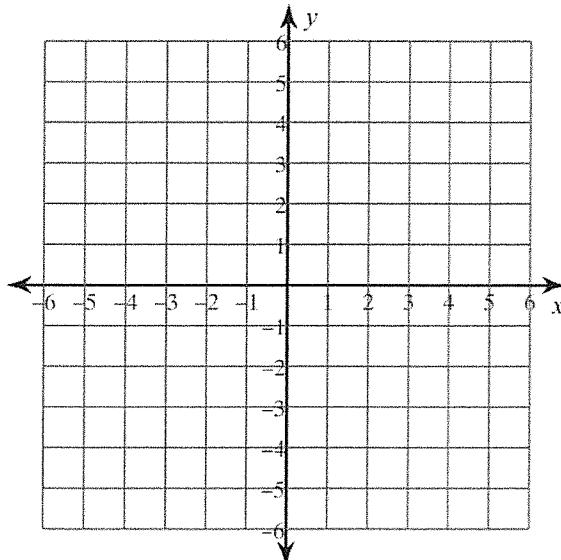
Solutions:



$$y = x^2 - 9x + 8$$

x	y

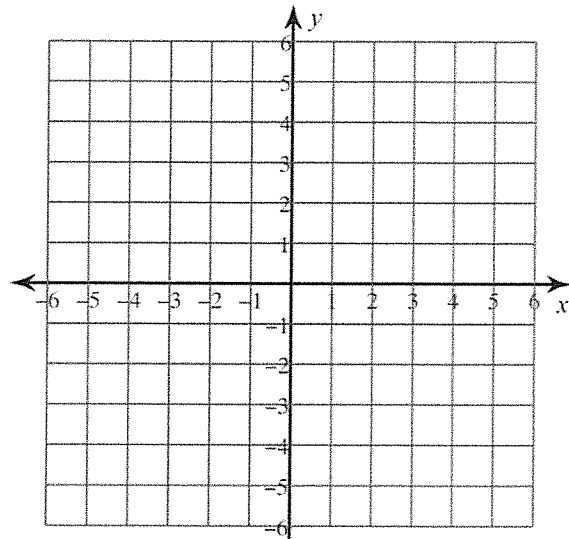
Solutions:



$$y = x^2 - 4$$

x	y

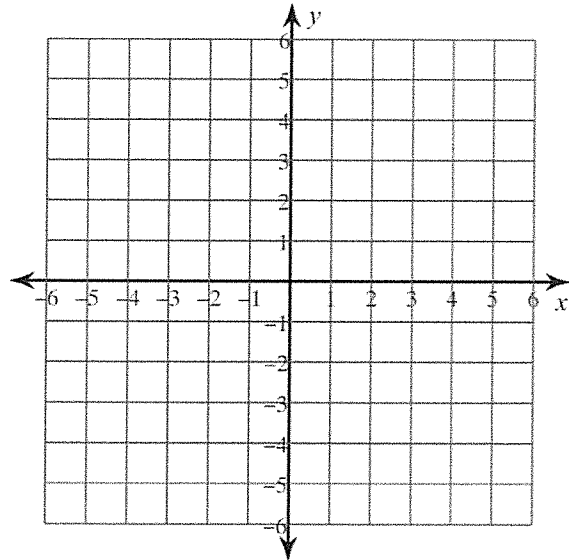
Solutions:



$$y = x^2 + 4$$

x	y

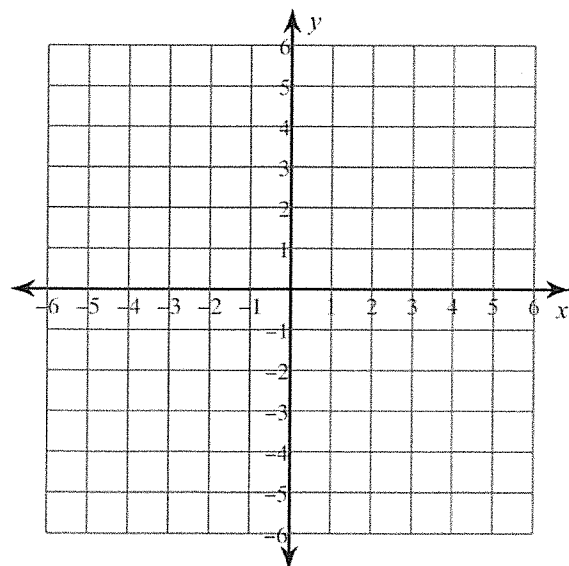
Solutions:



$$y = 3x^2 - 6x$$

x	y

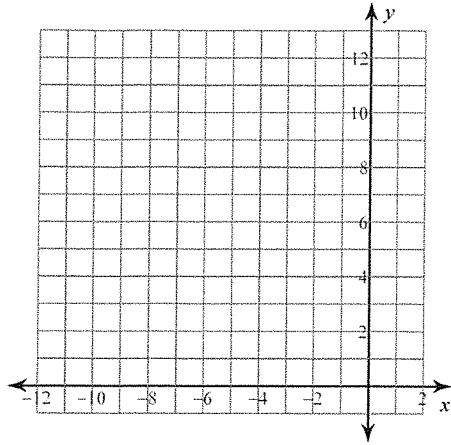
Solutions:



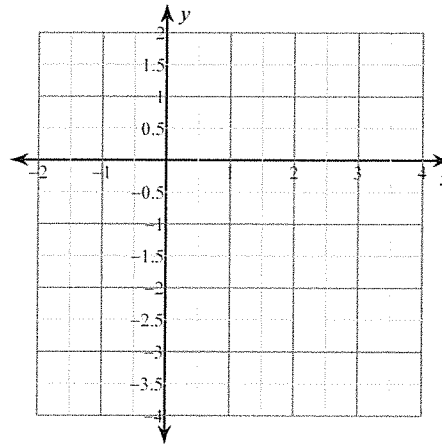
Graphing Quadratic Functions

Sketch the graph of each function.

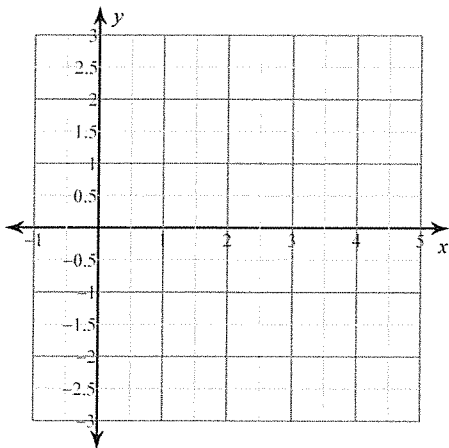
1) $y = 3x^2$



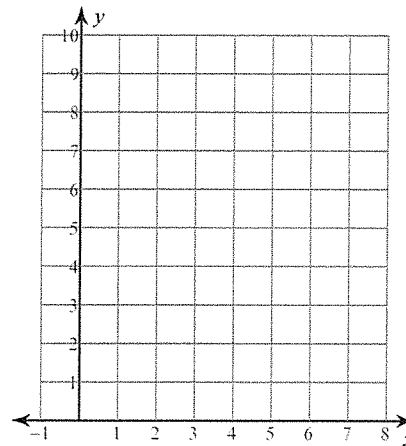
2) $y = -\frac{1}{2}x^2$



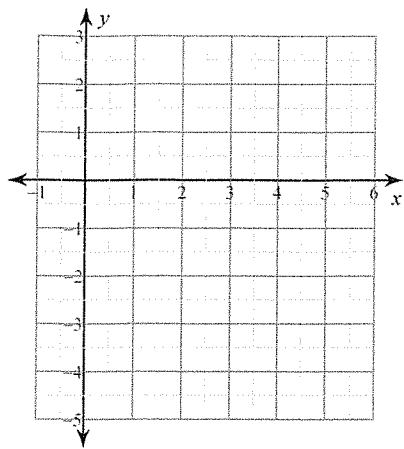
3) $y = -x^2 + 2x + 1$



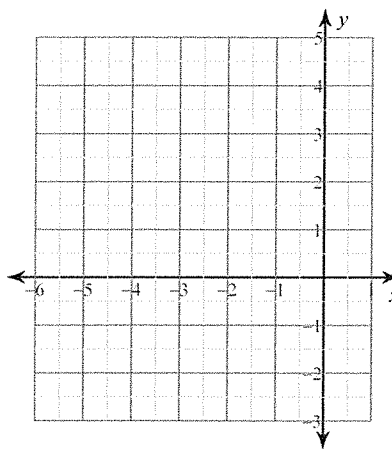
4) $y = 2x^2 - 16x + 33$



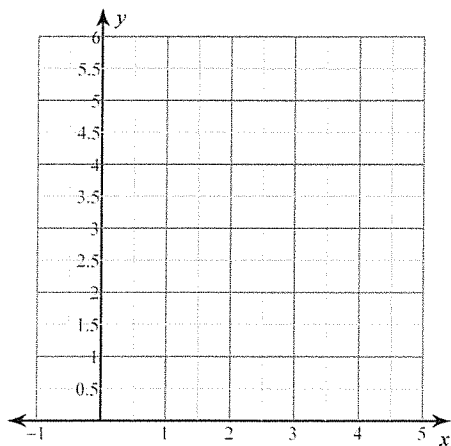
5) $y = x^2 - 8x + 13$



6) $y = -x^2 - 8x - 13$



7) $y = (x - 3)^2 + 1$



8) $y = \frac{1}{2}(x - 4)^2 - 2$

