## *Solving Quadratic Equations by Graphing*          Date: _____
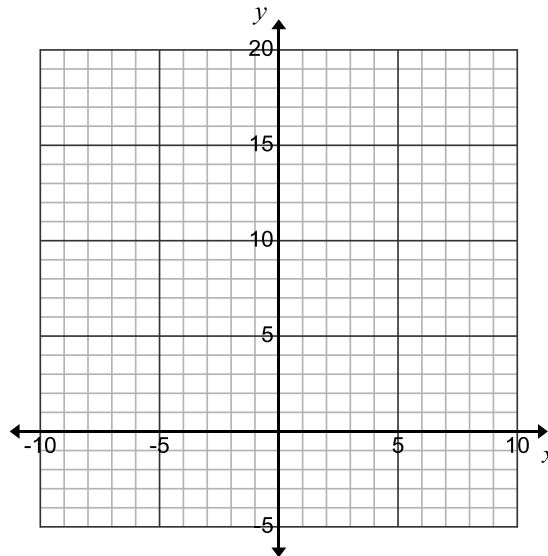
***Ex. 1:*** Given the quadratic equation $0 = -x^2 + 4x + 12$,

  solve it by sketching the corresponding quadratic function $f(x) = -x^2 + 4x + 12$.

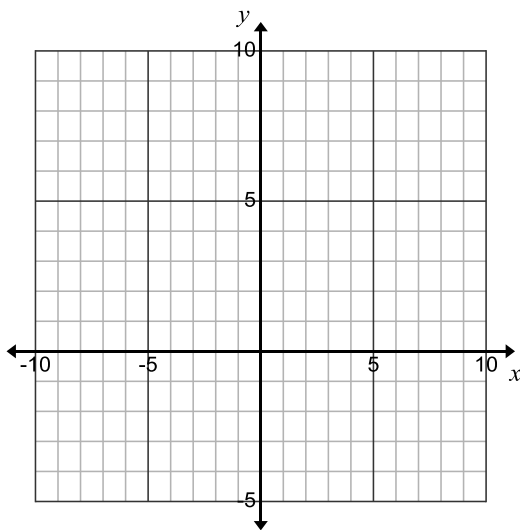  The x-intercepts (or zeros) of the function are the solutions (or roots) of the equation.

$f(x) = -x^2 + 4x + 12$ (complete the square)                          $0 = -x^2 + 4x + 12$ (factor)



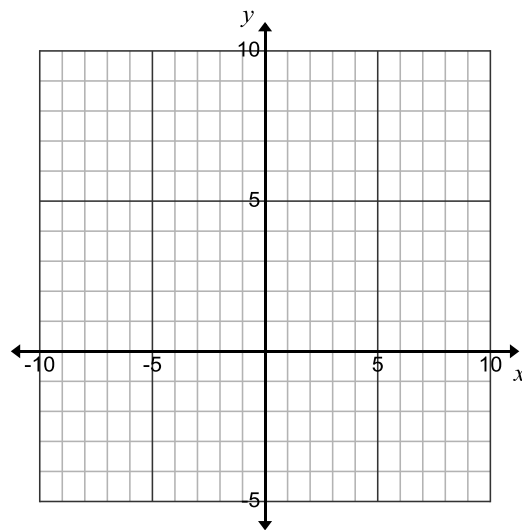***Ex. 2:*** Determine the solution to the quadratic equation $x^2 - 6x + 8 = 3$ by graphing.

Method 1                                                                    Method 2



**Homework:  p. 149 # 1b, 2a (by hand), 3ac, 6, 11, 12, 13**
**                   p. 155 #2, 3**