PC 11

Solving Quadratic Equations by Graphing

- Rearrange the equation so it is in standard form if it is not given in vertex form
- Write the equation in vertex form if it is given in standard form (= complete the square).
- Graph the parabola and identify the x-coordinate of the x-intercepts (if they exist)
- Solve (find proposed solutions), check (**Using the original equation,** show LS=RS without moving terms and/or numbers from left to right to right to left), and state.

Example 1: Solve $y = -(x + 5)^2 + 4$

Example 2: Solve $y = 2x^2 - 16x + 32$

Example 3: Solve $y = -x^2 - 10x - 16$

Example 4: Solve $y = -0.25x^2 + 2$

Example 5: Solve $y = -x^2 - 4x - 3$