**4.5 Quadratic Functions**

**Zero of the Function:** whenever the graph of a function, f(x), intersects the x-axis, in other words when f(x)=0. (A solution)

**Zero-Product Property**: if ab=0 then a=0 or b=0

We use this property to solve quadratic equations after factoring.

Example 1:

, the solution.

More Examples

**Solve by Graphing (show how to use graphing calculator)**

1. Find the vertex

Vertex at (1.5, -12.25)

1. Smart Points x y

2 -12

3 -10

3.) Reflect (1, -12) and (0, -10)

4.) Draw the Parabola

5.) Find the Zeros

Example 2:

Zeros:

**HMWK: page 229 #1-6, 9-17 (odd), 31, 44**