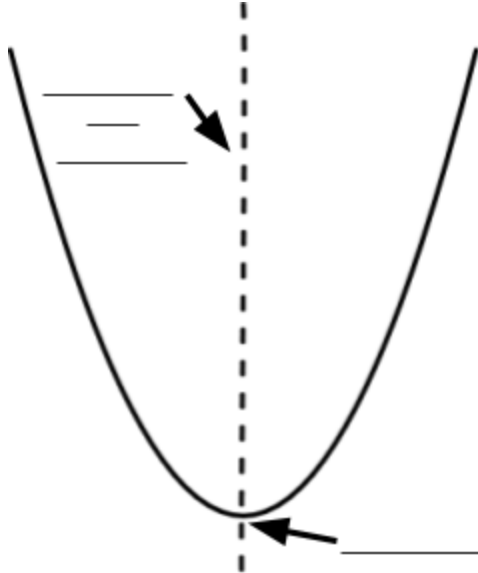


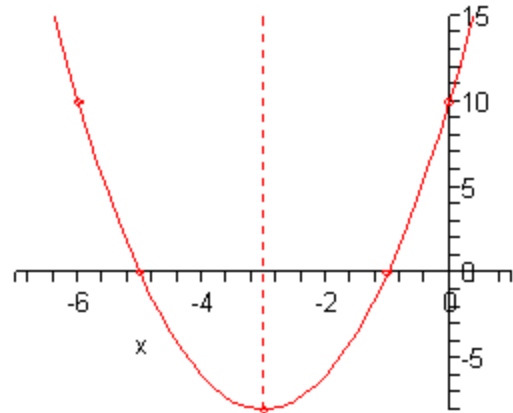
In graph form, a quadratic will take the shape of a _____

There are 2 important parts of a quadratic graph. _____ and _____

Label them...



On a grid you could have 3 more important parts



Turn and Talk... does a parabola have to have all of these important points?

Must have _____

Might not have _____

The equation could be in any of these forms.

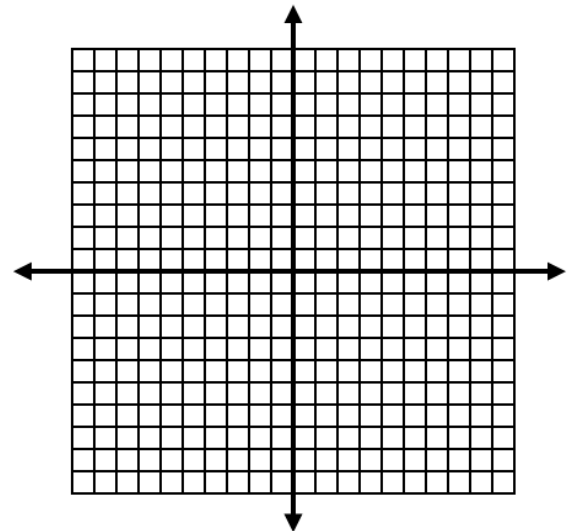
The most basic is... $y = \underline{\hspace{2cm}}$ Graph it!!!

Standard Form
 $y = ax^2 + bx + c$

Vertex Form
 $y = a(x - h)^2 + k$

Intercept Form
 $y = a(x - p)(x - q)$

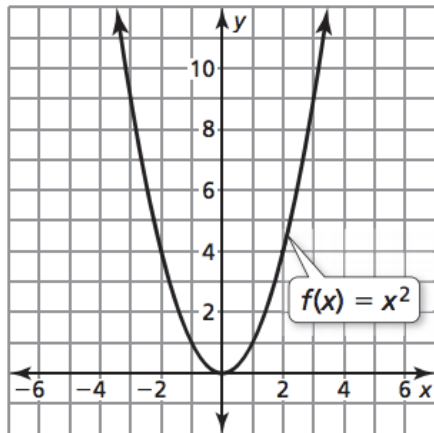
x	y



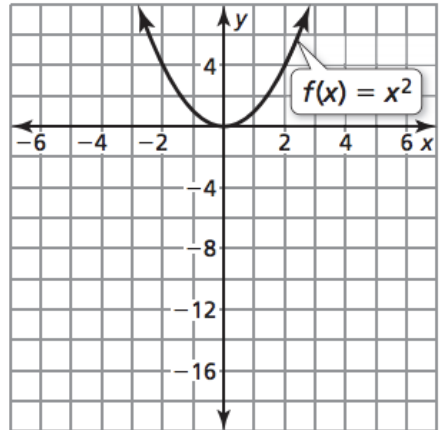
This is called the _____

Work with a partner. Graph each quadratic function. Compare each graph to the graph of $f(x) = x^2$.

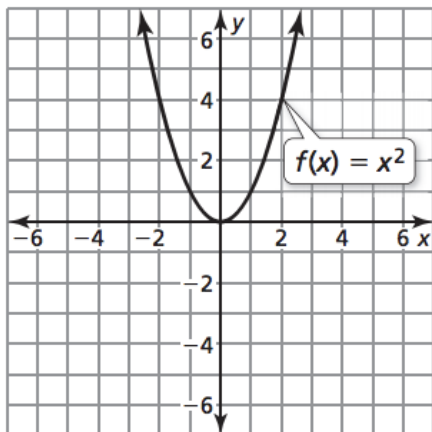
a. $g(x) = 3x^2$



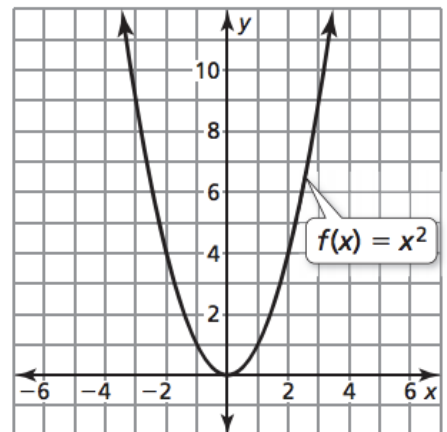
b. $g(x) = -5x^2$



c. $g(x) = -0.2x^2$



d. $g(x) = \frac{1}{10}x^2$



General observations...

- 1) IF _____ then _____
- 2) IF _____ then _____
- 3) IF _____ then _____
- 4) IF _____ then _____