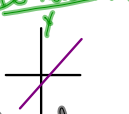



Wednesday, February 1, 2012
 -hw#1
 www.mrsineda.com
 Rm 319A - 3-4pm. 2/1/2012, 2/3/2012
 Aim: how do we graph an equation of the form $y = ax^2$?


Do Now: Let's take a look at some pictures.




line - linear equation
 $y = mx + b$
 m slope
 b y-intercept
 Degree = 1



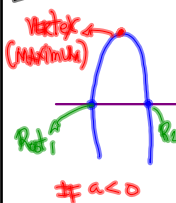
parabola.
 Quadratic Equations
 $y = ax^2$
 a coefficient
 Degree = 2
 Polynomial Equations

If $a < 0$  negative

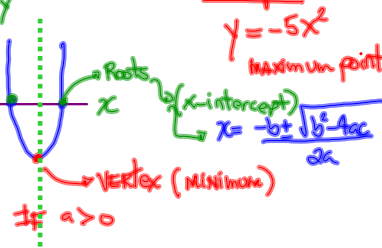
If $a > 0$  positive

Feb 1-9:32 AM

I- PARABOLA



Vertex (Maximum)
 $a < 0$



Roots (x-intercept)
 $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
 Vertex (Minimum)
 $a > 0$

example $y = -5x^2$ maximum point

Axis of Symmetry $x = \frac{-b}{2a}$

Feb 1-10:10 AM

example $y = ax^2 + bx + c$

a coefficient
 b coefficient
 c constant

$y = x^2 - 2x - 4$

find

$a = 1$

$b = -2$

$c = -4$

find the axis of symmetry

$$x = \frac{-b}{2a} = \frac{-(-2)}{2(1)} = \frac{+2}{2} = 1$$

Feb 1-10:25 AM