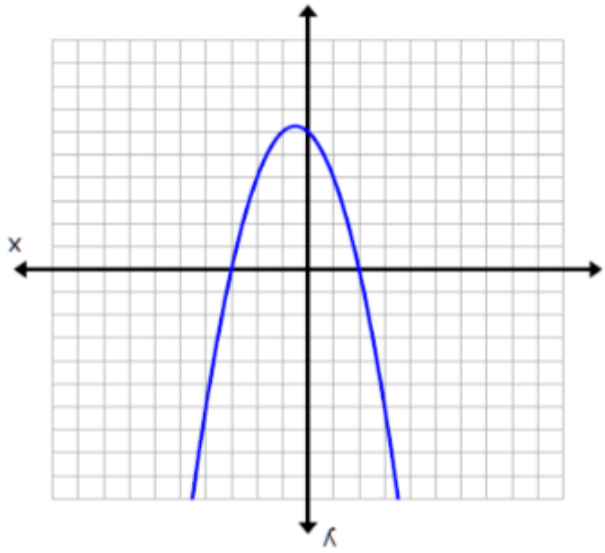
Write an equation in Standard form that would represent this graph



$x = 3$

$x = -2$

$(x+2)(x-3)$

$-x^2+x+6$

Dec 7-8:10 AM

Mr. Unlucky's company can be represented by the equation $y = -3x^2 + 18x - 4$. He wants to sell his company?

A) When should he sell his business?

Vertex is (3, 23)

he should Sell 3 units

B) At what point will he start losing money?

5.76

Dec 7-8:11 AM

LT 5.2

Topic: Solve by Factoring

How can you solve a quadratic equation and apply it with real world applications?

Feb 7-8:14 AM

Solve/Find the x - intercepts

$$y = x^2 - 2x - 15$$

$0 = x^2 - 2x - 15$

$-2^2 - 4(1)(-15)$

$0 = x^2 - 2x - 15$ 1+15 5·3

$0 = (x-5)(x+3)$

$x-5=0$ $x+3=0$

$x=5$ $x=-3$

Feb 7-8:17 AM

Solve/Find the x - intercepts

$$y = x^2 - 6x + 5$$

$(-6)^2 - 4(1)(5)$

$0 = x^2 - 6x + 5$

$0 = (x - 1)(x - 5)$

$x - 1 = 0$ $x - 5 = 0$

$x = 1$ $x = 5$

Feb 7-8:18 AM

Solve/Find the x - intercepts

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

$a = -1$
$b = 0$
$c = 4$

$0^2 - 4(-1)(4)$

16

$0 = -x^2 + 4$

$0 = -1(x^2 - 4)$

$0 = -1(x - 2)(x + 2)$

$x = 2$ $x = -2$

Feb 7-8:18 AM

Solve/Find the x - intercepts

$$-3x^2 = 12x - 36$$

$0 = 3x^2 + 12x - 36$

$12^2 - 4(3)(-36)$

$0 = 3x^2 + 12x - 36$

$0 = 3(x^2 + 4x - 12)$

$x^2 = 2x + 4x$

$0 = 3(x + 6)(x - 2)$

$x = -6 \quad x = 2$

Feb 7-8:18 AM

Solve/Find the x - intercepts

$$4x = 3x^2 - 15$$

$0 = 3x^2 - 4x - 15$

$3 \cdot 5 = 15$

$1 \cdot 15$

$0 = (3x + 5)(1x - 3)$

$3x + 5 = 0$

$3x = -5$

$x = -\frac{5}{3}$

$x = -1.67$

$x - 3 = 0$

$x = 3$

Feb 7-8:20 AM

The height of a Flare fired from the deck of a ship in distress can be modeled by $h(t) = -16t^2+104t + 56$, where h(t) is the height of the flare above water and t is the time in seconds. Find the time it takes the flare to hit the water

$0 = -16t^2+104t+56$

$0 = -8(2t^2-13t-7)$

$0 = -8(2x+1)(1x-7)$

$2x+1=0$ $\quad 1x-7=0$

$-1 \quad -1$ $\quad x=7$

$2x=-1$

$x=-\frac{1}{2}$

Feb 8-8:33 AM

A relief package is released from a helicopter at 1650 feet. The height of the package can be modeled by the equation $h(t) = -16t^2+1650$, where h(t) is the height of the package in feet and t is the time in seconds. The pilot wants to know how long it will take for the package to hit the roof of a building 50 feet off the ground.

$50 = -16t^2+1650$

$0 = -16t^2+1600$

Feb 8-8:31 AM

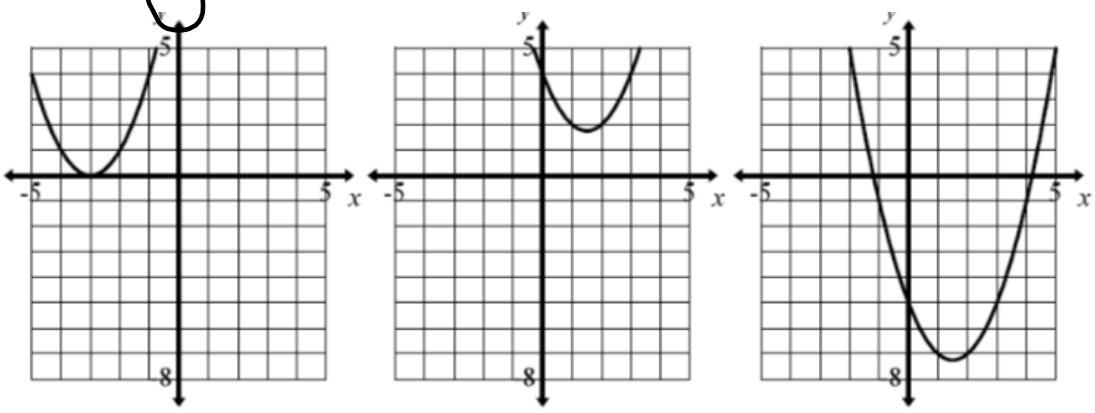
Solve/Find the x - intercepts

$$y = x^2 + 4x + 6$$

Feb 7-8:21 AM

What would each graph have for a discriminant?

0 — +



Feb 7-8:12 AM