December 5, 2017

Warm Up

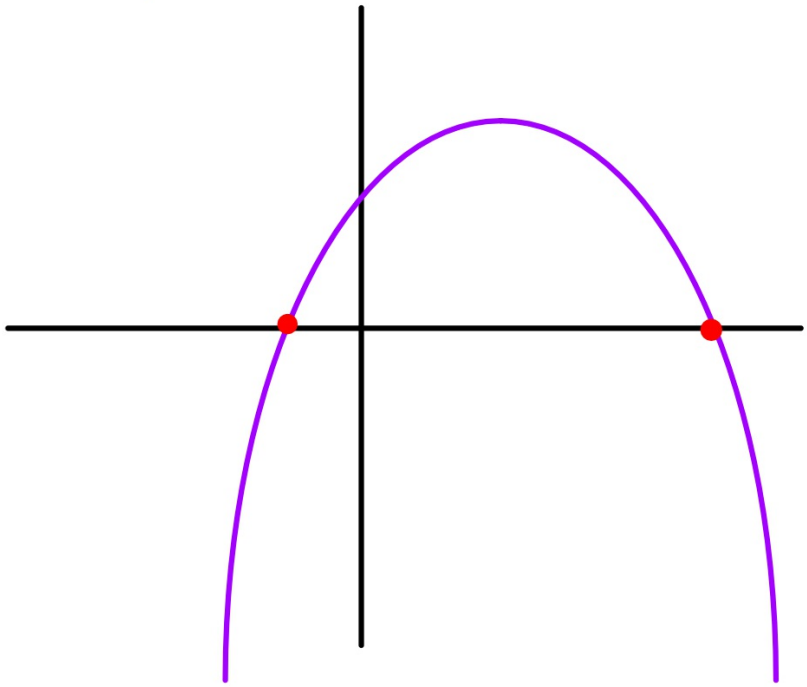
Factor and solve:

1. $x^2 - 5x - 14 = 0$

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

3. $3x^2 - 2x - 8 = 0$

Yesterday we talked about how to solve quadratic equations by factoring. What we were finding were the roots of the parabola.



Sometimes we have equations that we can't factor (most of the time in real-life problems this is the case). Another way to find the roots is using the quadratic formula:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

It's kind of ugly but it works really well and it works for ALL quadratic equations

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Solve, using the quadratic formula:

$$4x^2 + 2x - 2 = 0$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Find the roots of:

$$y = 5x^2 + 12x - 4$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Solve:

$$12x^2 + 4x - 5 = 0$$

On the class website, go to Advanced Algebra Notes and go to the website linked there to practice.