

Bellwork Monday, June 9, 2014

1. Find the x-intercepts of each by factoring.

a) $y = 48x^3 - 75x$

$$0 = 3x(16x^2 - 25)$$

$$0 = 3x(4x - 5)(4x + 5)$$

$$x = 0, \frac{5}{4}, -\frac{5}{4}$$

b) $y = x^2 + 2x - 80$

$$\begin{array}{r} -80 \\ +10 \quad -8 \\ +2 \end{array}$$

$$= (x+10)(x-8)$$

$$x = -10, 8$$

2. Solve each equation by factoring.

a) $3a^2 + 11a - 60 = 0$

b) $12m^2 + 15m = 0$

$$a = 3, -\frac{20}{3}$$

$$3m(4m+5) = 0$$

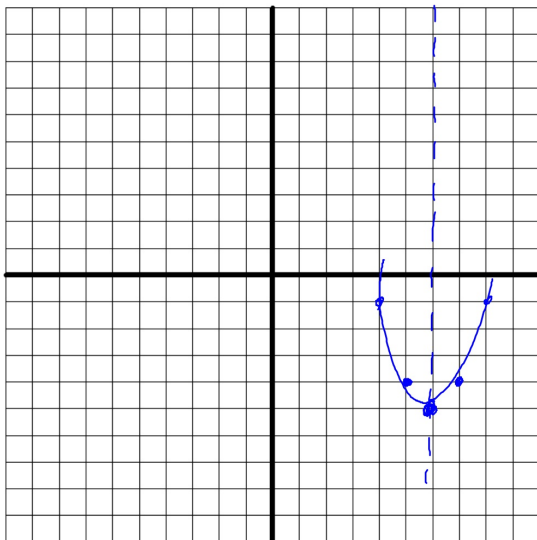
$$m = 0, -\frac{5}{4}$$

$3a^2$	$-9a$
$+20a$	-60

$$0 = (a-3)(3a+20)$$

3. Graph the following quadratic using the vertex and two points on each side.

$$y = x^2 - 12x + 31$$



LOS

$$x = \frac{12}{2} = 6$$

x	y
6	-5
7	-4
8	-1

4. Solve this quadratic using square roots. Give noninteger answers as fractions.

$$72x^2 - 50 = 0$$

$$\begin{array}{r} +50 \quad +50 \\ 72x^2 = \frac{50}{72} \end{array}$$

$$x^2 = \frac{50}{72}$$

$$\sqrt{x^2} = \sqrt{\frac{25}{36}}$$

$$x = \pm \frac{5}{6}$$