

NAME:

FINAL REVIEW

HOMEWORK

Objective: Solve Quadratics by Graphing (by hand and by calc.)

By hand:

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

$$(3)^2 - 6(3) + 5 = 9 - 18 + 5 = -9 + 5$$

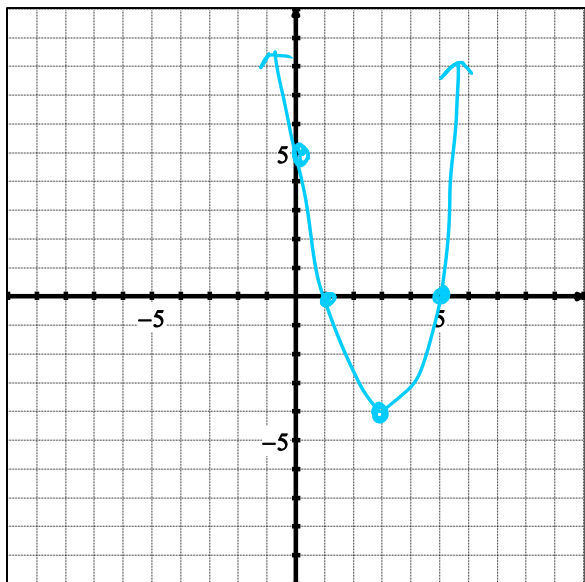
$$\frac{b}{2} = 3$$

Vertex: (3, -4)

y-intercept: (0, 5)

axis of symmetry: x = 3

x-intercepts: (1, 0) and (5, 0)



$$\begin{aligned} x^2 - 6x + 5 &= 0 \\ (x-5)(x-1) &= 0 \\ x &= 5 \quad x = 1 \end{aligned}$$

By calc: (Using a graphing calculator to calculate the roots)

$$y = 2x^2 - 5x - 8$$

$$x = -1.11$$

$$x = 3.61$$

$$y = -x^2 + 8x + 12$$

$$x = -1.29$$

$$x = 9.29$$

Objective: Solve Quadratics by square roots.

$$-5x^2 + 500 = 0$$

$$\frac{-500}{-5} \quad \frac{-500}{-5}$$

$$\frac{-5x^2}{-5} = \frac{-500}{-5}$$

$$\sqrt{x^2} = \sqrt{100}$$

$$x = \pm 10$$

$$3x^2 - 75 = 0$$

$$\frac{+75}{3} \quad \frac{+75}{3}$$

$$\frac{3x^2}{3} = \frac{75}{3}$$

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

$$x = \pm 5$$

$$-2x^2 + 48 = 0$$

$$\frac{-48}{-2} \quad \frac{-48}{-2}$$

$$\frac{-2x^2}{-2} = \frac{-48}{-2}$$

$$\sqrt{x^2} = \sqrt{24}$$

$$x = \pm 4.9$$