

# 4/3 Algebra 1 - Downing

Go over HW

Find the roots

$$\begin{array}{r} 9x^2 - 35 = 14 \\ +35 \quad +35 \\ \hline \end{array}$$

$$\frac{9x^2}{9} = \frac{49}{9}$$

$$\sqrt{x^2} = \sqrt{5.44}$$

$$x = \pm 2.33$$

Solve by Factoring

$$\begin{array}{r} 3x^2 - 8 = -10x \\ +10x \quad +10x \\ \hline \end{array}$$

$$3x^2 + 10x - 8 = 0$$

$$(3x^2 - 2x) + (12x - 8) = 0$$

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

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

$$x = -4, \frac{2}{3}$$

$$\begin{array}{r} -24 \\ -1 \mid 24 \\ -2 \mid 12 \\ -3 \mid 8 \end{array}$$

Solve by Completing the Square

$$\begin{array}{r} -5x^2 - 20x + 35 = 30 \\ -35 \quad -35 \\ \hline \end{array}$$

$$\frac{-5x^2 - 20x}{-5} = \frac{-5}{-5}$$

$$x^2 + 4x + 4 = 1 + 4$$

$$x^2 + 4x + 4 = 5$$

$$\sqrt{(x+2)^2} = \sqrt{5}$$

$$\frac{x+2}{-2} = \frac{2.24}{-2} \quad \text{or} \quad \frac{-2.24}{-2}$$

$$x = 0.24 \quad \text{or} \quad -4.24$$

HW - Quadratic Formula Workday WS #1, 2-14 Evens