

#1-4, Solve using the indicated method. You must show work (except for #4).

1. Factoring

$$x^2 + 5x - 150 = 0$$

$$(x+15)(x-10) = 0$$

$$x+15=0 \quad x-10=0$$

-15 or 10

2. Completing the Square

$$m^2 - 6m - 10 = 0$$

$$m^2 - 6m = 10$$

$$m^2 - 6m + 9 = 10 + 9$$

$$\sqrt{(m-3)^2} = \sqrt{19}$$

$$m-3 = \pm\sqrt{19}$$

$m = 3 \pm \sqrt{19}$ or 7.36 or -1.36

3. Quadratic Formula

$$-a^2 + 5 = -3a$$

$$-a^2 + 3a + 5 = 0$$

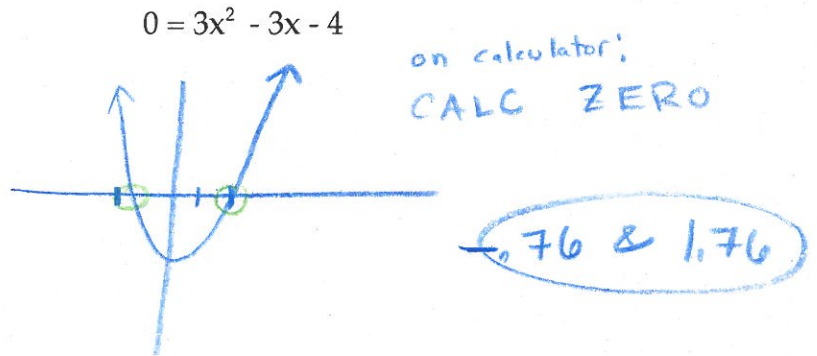
$$a = -1 \quad b = 3 \quad c = 5$$

$$-3 \pm \sqrt{3^2 - 4(-1)(5)}$$

$$\frac{-3 \pm \sqrt{29}}{-2}$$

-1.19 or 4.19

4. Graphing



#5-7, Solve using any method you please. Show work.

5. $x^2 - 3x = 40$

$$x^2 - 3x - 40 = 0$$

$$(x-8)(x+5) = 0$$

8, -5

6. $0 = 2x^2 + 4x - 5$

$$\frac{-4 \pm \sqrt{4^2 - 4(2)(-5)}}{4}$$

$$\frac{-4 \pm \sqrt{56}}{4}$$

.87 & -2.87

7. $x^2 - 4 = 21$

$$x^2 - 25 = 0$$

$$x^2 = 25$$

$x = \pm 5$

8. Solve and leave answer in exact form.

$$\sqrt{(m-5)^2} = 18$$

$$m-5 = \pm\sqrt{18}$$

$$+5 \quad +5$$

$$m = 5 \pm \sqrt{18}$$

$5 \pm 3\sqrt{2}$