**Extra Credit 29 - 32**

**Extra #29**

**Solve by factoring**

**1.** $3d^{2}+ 24d+45=0$ **2.**$ 15x^{2}+ 19x+6=0$ **3.** $12m^{3}- 8m^{2}=15m$

**Write a quadratic equation that has the given roots.**

**4.** x = 4, $\frac{1}{3}$ **5.** x = $\frac{-2}{3}, \frac{-4}{5}$ **6.** x = -2$\sqrt{5}, 4\sqrt{5}$

**Extra #30**

**Solve by completing the square**

**1.**  $x^{2}- 5x+2=0$ **2.** $b^{2}- 3b+6=0$ **3.** $a^{2}+ 6a-3=0$

**Extra #31**

**Solve by quadratic formula**

**1.** $n^{2}- 3n=40$ **2.** 3$x^{2}+ 9x-2=0$

**3.** $7u^{2}+ 6u+2=0$ **4.** $5w^{2}- 2w+4=0$

**5.** $12x^{2}- x-6=0$ **6.** $x^{2}- \frac{1}{2}x+ \frac{1}{16}=0$

**Extra #32**

**Solve the inequalities. (no calculator)**

**1**. $x^{2}- x-20>0$ **2.** $x^{2}- 10x+16<0$ **3.** $5x^{2}+ 10 \geq 27x$

**4.** 9$x^{2}+ 31x+12 \leq 0$ **5.** $9x \leq 12x^{2}$ **6.** $a^{2}+ 64 \geq 16a$