Name: Date: Class Color: HW #

**Solving Equations and Factoring Homework**

**Directions: Solve each equation.**

**1.** $–3x+16=28$ **2.** $8x-5=12x+23$

**3.** $7\left(3x-9\right)= -3(5x-3)$ **4.** $\frac{6x}{5}=12$

**5.** $\frac{2\left(2x-1\right)}{5}=\frac{2x}{3}$

**Directions: Factor each completely.**

**6.** $x^{2}+ 12x+27$ **7.** $x^{2}- 3x-28$

**8.** $x^{2}- 10x+16$ **9.** $3x^{2}+ 2x-5$

**10.** $8x^{2}+ 34x+21$

**Directions: FOIL**

**11.** $\left(x-6\right)(x+9)$ **12.** $\left(3x-2\right)(4x-1)$