**Extra Credit 34 - 37**

**Extra #34**

**Simplify**

**1.** $\frac{a^{5}y^{3}}{wy^{7}} ÷ \frac{a^{3}w^{2}}{w^{5}y^{2}}$ **2.**$ $ $(\frac{2xy}{w^{2}})^{3} ÷ \frac{24x^{2}}{w^{5}} $ **3.** $\frac{x+y}{6} ÷ \frac{x^{2}- y^{2}}{3} $

**4.** $\frac{3x+6}{x^{2}- 9} ÷ \frac{6x^{2}+ 12x}{4x+12} $ **5.** $\frac{\frac{b^{2}- 100}{b^{2}}}{\frac{3b^{2}- 31b+10}{2b}}$ **6.** $\frac{\frac{x^{3}+ 2^{3}}{x^{2}- 2x}}{\frac{(x+2)^{2}}{x^{2}+ 4x+4}}$

**Extra #35**

**Simplify**

**1.**  $\frac{5}{2x-12}- \frac{20}{x^{2}- 4x-12}$ **2.** $\frac{2-5m}{m-9}+ \frac{4m-5}{9-m}$ **3.** $\frac{2p-3}{p^{2}- 5p+6}- \frac{5}{p^{2}- 9}$

**4.** $\frac{1}{5n}- \frac{3}{4}+ \frac{7}{10n}$ **5.** $\frac{\frac{7}{n}+ \frac{12}{n+1}}{\frac{n+9}{n+1}- \frac{5}{n}}$ **6.** $\frac{\frac{2}{x-y}+ \frac{1}{x+y}}{\frac{1}{x-y}}$

**Extra #36**

**Solve**

**1.** $\frac{x^{2}}{8}$ $– 4= \frac{x}{2}$ **2.** $\frac{x+10}{x^{2}- 2} = \frac{4}{x} $ **3.** $\frac{x+1}{x-3} =4- \frac{12}{x^{2}- 2x-3}$

**4.** $\frac{2x+1}{3}- \frac{x-5}{4}= \frac{1}{2}$ **5.** $\frac{3}{4}- \frac{3m}{4m+6}=8$ **6.** $\frac{10}{m^{2}- 1}+ \frac{2m-5}{m-1}= \frac{2m+5}{m+1}$

**Extra #37**

**Find the domain and range of each function**

**1.** f(x) = - $\sqrt{16- x^{2}}$ **2**. f(x) = $5x^{2}+ 2x-1$ **3.** g(x) = $\sqrt{x^{2}- 4}$