

### #3 ~ Sect. 12.4: Multiplying Rational Expressions

Ex. 1 : Multiply.

a)  $\frac{7}{y} \cdot \frac{8}{y^2}$

b)  $\frac{x}{x+5} \cdot \frac{x-2}{x-6}$

Factor everything completely and then cross out common factors.

Ex. 2: Multiply.

$$\text{a) } \frac{3x+1}{4} \cdot \frac{8x}{9x^2-1}$$

$$\text{b) } \frac{x-2}{8x} \cdot \frac{-8x-16}{x^2-4}$$

$$\text{c) } \frac{2x+1}{3} \cdot \frac{6x}{4x^2-1}$$

Ex. 3: Multiply.

a)  $\frac{3}{c} \cdot (c^3 - c)$

b)  $\frac{2v}{v+3} \cdot (v^2 - 2v - 15)$

c)  $\frac{5x+1}{3x+12} \cdot (x^2 + 7x + 12)$

d)  $(m-1) \cdot \frac{4m+8}{m^2-1}$