## Multiplying and Dividing Rational Expressions

• Simplify Rational Expression

$$\frac{7a^3}{21a}$$

$$\frac{21}{6x-9}$$

$$\frac{3x+21}{x^2+7x}$$

$$\frac{6-5a}{10a-12}$$

$$\frac{25 - p^2}{p^2 + 10p + 25}$$

• Multiply and Divide then Simplify.

$$\frac{a^2-1}{2-5a} \cdot \frac{15a-6}{a^2+5a-6}$$

$$\frac{x^3 + 8y^3}{2x^2 + 5xy + 2y^2} \div \frac{x^3 - 2x^2y + 4xy^2}{8x^2 - 2y^2}$$

• Simplify.

$$\frac{x(x+1)-2(x+3)}{(x+1)(x+2)(x+3)}$$

$$\frac{m^2 - t^2}{m^2 + t^2 + m + t + 2mt}$$

$$\frac{x^3 + x^2 - y^3 - y^2}{x^2 - 2xy + y^2}$$