

Multiply and Divide  
Rational Expressions

$$\frac{3x^2}{2y} \cdot \frac{4y^3}{3x}$$

$$\frac{12x^2y^3}{6xy}$$

$$2xy^2$$

$$\frac{2x^3y}{3z^4} \cdot \frac{6xz^5}{10y^5}$$

$$\frac{12x^4yz^5}{30y^5z^4}$$

$$\frac{2x^4z}{5y^4}$$

$$\frac{2x^2y}{3z^3} \cdot \frac{12xz^4}{6y^3}$$

$$\frac{24x^3yz^4}{18y^3z^3}$$

$$\frac{4x^3z}{3y^2}$$

$$\frac{x^2-16}{x^2} \cdot \frac{x^2-4x}{x^2-x-12}$$

$$\frac{(x+4)(x-4)}{x^2} \cdot \frac{x(x-4)}{(x-4)(x+3)}$$

$$\frac{(x+4)(x-4)}{x(x+3)}$$

$$\frac{a^2-10a+21}{a-7} \cdot \frac{a^2+a-12}{(a-3)^2}$$

$$\frac{(a-7)(a-3)}{a-7} \cdot \frac{(a+4)(a-3)}{(a-3)(a-3)}$$

$$a+4$$

$$\frac{y^2+10y+25}{y^2-9} \cdot \frac{y^2+3y}{y+5}$$

$$\frac{(y+5)(y+5)}{(y+3)(y-3)} \cdot \frac{y(y+3)}{y+5}$$

$$\frac{y(y+5)}{y-3}$$

$$\frac{6x+18}{x^2+5x+4} \cdot \frac{x^2-x-2}{x^2+4x+3}$$

$$\frac{6(x+3)}{(x+4)(x+1)} \cdot \frac{(x-2)(x+1)}{(x+3)(x+1)}$$

$$\frac{6(x-2)}{(x+4)(x+1)}$$

$$\frac{6x-24}{x^2-9x+20} \cdot \frac{5x-25}{3x-6}$$

$$\frac{6(x-4)}{(x-4)(x-5)} \cdot \frac{5(x-5)}{3(x-2)}$$

$$\frac{10}{3(x-2)}$$

$$\frac{6x+30}{x^2-7x+10} \cdot \frac{7x-14}{3x-6}$$

$$\frac{6(x+5)}{(x-5)(x-2)} \cdot \frac{7(x-2)}{3(x-2)}$$

$$\frac{14(x+5)}{(x-5)(x-2)}$$

$$\frac{10}{x-2}$$

$$\frac{16a^7}{3b^5} \div \frac{8a^3}{6b}$$

$$\frac{16a^7}{3b^5} \cdot \frac{6b}{8a^3}$$

$$\frac{96a^7b}{24a^3b^5}$$

$$\frac{4a^4}{b^4}$$

$$\frac{y^3+3y}{y^2-9} \div \frac{y^2+5y-14}{y^2+4y-21}$$

$$\frac{y(y^2+3)}{(y-3)(y+3)} \cdot \frac{(y+7)(y-3)}{(y+7)(y-2)}$$

$$\frac{y(y^2+3)}{(y+3)(y-2)}$$

$$\frac{3y+15}{y^7} \div \frac{y+5}{y^2}$$

$$\frac{3(y+5)}{y^7} \cdot \frac{y^2}{y+5}$$

$$\frac{3}{y^5}$$

$$\frac{y^2-9}{y^2} \div \frac{y^5+3y^4}{y+2}$$

$$\frac{(y+3)(y-3)}{y^2} \cdot \frac{y+2}{y^4(y+3)}$$

$$\frac{(y-3)(y+2)}{y^6}$$

$$\frac{x^2-16}{x^2-10x+25} \div \frac{3x-12}{x^2-3x-10}$$

$$\frac{(x-4)(x+4)}{(x-5)(x-5)} \cdot \frac{(x-5)(x+2)}{3(x-2)}$$

$$\frac{(x+4)(x+2)}{3(x-5)}$$

$$\frac{x^2-7x-8}{2x+6} \div \frac{x^2-3x-4}{4x+12}$$

$$\frac{(x-8)(x+1)}{2(x+3)} \cdot \frac{4(x+3)}{(x-4)(x+1)}$$

$$\frac{2(x-8)}{x-4}$$

$$\frac{4y+12}{2y-10} \div \frac{y^2-9}{y^2-y-20}$$

$$\frac{4(y+3)}{2(y-5)} \cdot \frac{(y-3)(y+4)}{(y+3)(y-3)}$$

$$\frac{2(y+4)}{y-3}$$

$$\frac{2m^2-5m-12}{m^2-10m+24} \div \frac{4m^2-9}{m^2-3m+18}$$

$$\frac{(2m+3)(m-4)}{(m-4)(m-6)} \cdot \frac{(m-6)(m+3)}{(2m-3)(2m+5)}$$

$$\frac{m+3}{2m-3}$$