

# Review: Multiplying & Dividing Rational Expressions

## Simplify

$$1) \frac{7x^2y^3}{9w^2k} \div \frac{14x^2w}{18y^3k}$$

$$2) \frac{5n-5}{3} \cdot \frac{9}{n-1}$$

$$3) \frac{3a-3b}{a} \div \frac{a-b}{a^2}$$

$$4) \frac{3a-6}{a^2-9} \cdot \frac{a+3}{a^2-2a}$$

$$5) \frac{3x^2+3x}{x+2} \cdot \frac{x^2+4}{6x^2+12x}$$

$$6) \frac{x^2-2x-3}{x+4} \div \frac{x^2-9}{x^2+8x+16}$$

$$7) \frac{x^2+x-2}{x^2+5x+6} \div \frac{x^2+2x-3}{x^2+7x+12}$$

$$8) \frac{2m^2+7m-15}{m+5} \div \frac{9m^2-4}{3m+2}$$

$$9) \frac{4x^2-11x+6}{3x^2-3x-18} \cdot \frac{6x^2-24}{x^2-4x+4} \cdot \frac{2}{4x-3}$$

$$10) \frac{x+1}{x^2+5x+6} \cdot \frac{2}{x^2-1} \div \frac{1}{x^2+6x+9}$$

## Answers:

$$1) \frac{y^6}{w^3}$$

$$2) 15$$

$$3) 3a$$

$$4) \frac{3}{a(a-3)}$$

(next page)

# Answers:

$$5) \frac{(x+1)(x^2+4)}{2(x+2)^2}$$

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

$$7) \frac{x+4}{x+3}$$

$$8) \frac{2m-3}{3m-2}$$

$$9) \frac{4}{x-3}$$

$$10) \frac{2(x+3)}{(x+2)(x-1)}$$