

Name _____ Block _____

Simplify

$$1) \frac{5x-20}{x^2-7x+12}$$

$$2) \frac{3x+12}{x^2+3x-4}$$

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

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

$$5) \frac{x^2-2x-15}{x^2-4x-5}$$

$$6) \frac{x^2-8x-9}{x^2-1}$$

$$7) \frac{x^2-25}{x^3-125}$$

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

Multiply.

$$9) \frac{4x^2y^3}{x^5y^6} \cdot \frac{xy}{20x^3}$$

$$10) \frac{21x^{10}y^5}{5x^2} \cdot \frac{x^3}{35y^4}$$

$$11) \frac{3x^2 - 12}{5x - 10} \cdot \frac{1}{2x + 4}$$

$$12) \frac{x^2 - 2x}{x^2 + 2x + 1} \cdot \frac{x^2 + 4x + 3}{x^2 + 3x}$$

Divide

$$13) \frac{3xy^3}{x^3y} \div \frac{9y^2}{xy}$$

$$14) \frac{48x^2}{y} \div \frac{36xy^2}{5}$$

$$15) \frac{4x^2 + 20x}{x^2 - 2x - 35} \div \frac{x^2}{x - 7}$$

$$16) \frac{x^2 - 3x + 2}{25x} \div \frac{x - 1}{5x^2}$$