

## Algebra 2: Homework 17

In 1 – 3, simplify:

$$1. \quad \frac{4x-20}{4x+20} \cdot \frac{3x^2+30x}{3x^2-15x}$$

$$2. \quad \frac{6a^2+2a}{9a^2+6a+1} \cdot \frac{9a^2-1}{6a^2}$$

$$3. \quad \frac{2y^2+11y+5}{4y^2+4y+1} \div \frac{2y^3+10y^2}{4y^3}$$

In 4 – 5, combine and simplify.

$$4. \quad \frac{2k^2}{k^2+3k} - \frac{k^2+9}{k^2+3k}$$

$$5. \quad \frac{x^2+1}{x^2-16} + \frac{5x+3}{x^2-16}$$