

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Algebra I

Directions: Multiply or divide the rational expressions. Make sure your answer is in simplest form.

1.  $\frac{1}{2x} \cdot \frac{3x}{5}$

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

2.  $\frac{2a-4}{b} \cdot \frac{b^2}{4a}$

5.  $\frac{5x}{x^2-4} \cdot \frac{3x^2+5x-2}{15x^2-5x}$

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

6.  $\frac{x^2-1}{3x+3} \cdot \frac{3-3x}{1-x^2}$

$$7. \frac{2x^3}{3x} \div \frac{8x^2}{6x}$$

$$8. \frac{x^2-25}{5x+25} \div \frac{3x-15}{15x}$$

$$9. \frac{x^2-49}{49+x^2} \div \frac{49-x^2}{x^2+49}$$

$$10. \frac{x^2+5x+6}{x^2-4} \div \frac{x^2-9}{x^2-5x+6}$$

$$11. \frac{4x+8}{8x^2} \div \frac{3x+6}{6x}$$

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