

Name _____

Rational Expression Worksheet #7: Simplify/Multiply/Divide

Simplify (*remember to factor when necessary*).

1. $\frac{12x^6}{42x^4}$

2. $\frac{x^2 + 8x + 15}{3x + 9}$

Multiply or divide (*remember to factor when necessary*).

3. $\frac{x+3}{5x+20} \cdot \frac{x^2+3x+2}{x^2+5x+6}$

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

5. $\frac{15x^2}{45x^3} \div \frac{5x^6}{9x^4}$

6. $\frac{6x+24}{5x-35} \cdot \frac{9x-63}{7x+28}$

Name _____

Rational Expression Worksheet #8: Simplify/Multiply/Divide

Simplify (*remember to factor when necessary*).

1. $\frac{18x^6}{27x^4}$

2. $\frac{x^2 + 6x + 8}{3x + 12}$

3. $\frac{x^2 - 7x + 12}{x^2 + 2x - 15}$

Multiply or divide (*remember to factor when necessary*).

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

5. $\frac{x^2-x-12}{3x+9} \div \frac{x^2+x-20}{x+5}$

6. $\frac{15x^2}{45x^3} \div \frac{5x^6}{9x^4}$

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

8. $\frac{6x-12}{4x^2} \cdot \frac{3x^3}{2x-4}$

9. $\frac{3x-21}{x^2-3x-28} \cdot \frac{5x+20}{2x+8}$

10. $\frac{x^2-5x-6}{2x+6} \div \frac{x^2-3x-4}{4x+12}$

11. $\frac{25xy^3}{35x^4y^2} \cdot \frac{14xy}{10x^2y^3}$

12. $\frac{4x}{x+1} \cdot \frac{x^2-6x-7}{x^2-7x}$

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