

Name: _____ Period: _____

7.1 Practice Rational Expressions: Simplifying

Simplify (*remember to factor when necessary*).

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

2. $\frac{x^2+9x+20}{2x+8}$

3. $\frac{6x+24}{x^2+7x+12}$

4. $\frac{3x+18}{x^2+6x}$

5. $\frac{3x-12}{3x^2-12x}$

6. $\frac{x^2-5x+6}{x^2+2x-15}$

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

8. $\frac{x^2-x-12}{x^2-2x-8}$

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

7.1 Practice Rational Expressions: Multiplying & Dividing

Multiply or divide the rational expressions. Show work & factor when necessary.

$$1. \frac{2x+6}{5x+10} \cdot \frac{x+2}{x^2+4x+3}$$

$$2. \frac{x^2-x-12}{3x-9} \div \frac{x-4}{12}$$

$$3. \frac{x^2-5x+4}{x^2} \div \frac{x-1}{x}$$

$$4. \frac{6}{x^2+9x+20} \cdot \frac{8x+40}{6x-12}$$

$$5. \frac{5x-15}{4x^2} \cdot \frac{x^3}{6x-18}$$

$$6. \frac{7x^2}{12x} \div \frac{14x^3}{48y^3}$$

$$7. \frac{x^2+5x-24}{2x+2} \div \frac{3x+24}{x^2-8x-9}$$

$$8. \frac{24x^3}{50x} \cdot \frac{30}{8x^2}$$

$$9. \frac{4x}{8x+8} \cdot \frac{x^2+8x+7}{8x^3}$$

$$10. \frac{6x-12}{x^2-9x+18} \cdot \frac{7x-21}{5x-10}$$