

**Continued Practice Simplifying Rational Expressions**

Simplify the rational expressions, if possible.

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

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

Multiply or divide. Identify any x-values for which the expression is undefined.

3.  $\frac{x^2-5x}{x^3} \cdot \frac{x-2}{x^2-3x-10}$

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

$$5. \frac{7x^2}{12x} \div \frac{14x^3}{48y^3}$$

$$6. \frac{x-9}{x^2-9} \div \frac{x-9}{5x^2(x+3)}$$

$$7. \frac{80-8x}{x^2-9x-10} \div \frac{x-8}{x^2-7x-8}$$

$$8. \frac{6x^3+18x^2}{6x^2} \div \frac{x+3}{6x^2}$$

$$9. \frac{25x-30}{7x-14} \div \frac{25x^2-10x-24}{35x+28}$$

$$10. \frac{10x-20}{10} \div \frac{x^2+7x-18}{10}$$