

## Lesson 7: Rational Expressions and Functions

Determine the value(s) of the variable for which the expression is undefined.

1)  $\frac{x-2}{x+5}$

2)  $\frac{4x-2}{x-2}$

3)  $\frac{7x-12}{4-x}$

Simplify or write the rational expression in lowest terms.

4)  $\frac{25x^5}{20x^2}$

5)  $\frac{18a^2b^3}{24a^4b^3}$

6)  $\frac{x^2+2x+1}{5x+5}$

7)  $\frac{5x^2-10x}{x^2+x-6}$

8)  $\frac{x^2-16}{x^2+3x-4}$

9)  $\frac{x^2-9y^2}{x^2+8xy+15y^2}$

10)  $\frac{x^2+4x+3}{x+3}$

11)  $\frac{x^2-16x+15}{x-15}$

12)  $\frac{x^2-y^2}{x^2+2xy+y^2}$