



guided notes

NAME _____

Module 15 Simplifying Rational Expressions
Lesson 1 Finding Restricted Values of Rational Expressions

Lesson Objective

- Find the restrictions that must be placed on the variable in a rational expression.

A rational expression is a fraction whose numerator and denominator are **polynomials**.

The domain of a rational expression is the set of all real numbers except those values that make the denominator **zero**.

A **restricted value** of a rational expression is a real number that makes the denominator of that expression zero.

1 Find the restricted values of the rational expression: $\frac{9}{x}$.

0 _____

2 Find the domain of the rational expression: $\frac{9}{x}$.

$x \neq 0$ _____

3 Find the restricted values of the rational expression: $\frac{4}{x + 9}$.

-9 _____

4 Find the restricted values of the rational expression: $\frac{3n}{2n - 6}$.

3 _____

5 Find the restricted values of the rational expression: $\frac{x + 1}{x^2 + x - 6}$.

2, -3 _____

