NAME _____

Module 16 Solving Rational Equations
Lesson 1 Solving Rational Equations

Lesson Objectives

- Solve rational equations by multiplying the equation by the least common multiple of the denominators.
- Identify when a number is a restricted value of the variable and recognize that is it not a solution.

A rational equation contains at least one **fraction** _____.

To solve a rational equation, first find the **least common denominator** _____.

1 ▶ Solve and check: $\frac{2}{3x} = 6$

The solution is **$\frac{1}{9}$** _____.

2 ▶ Solve: $\frac{x}{8} - \frac{1}{6} = \frac{1}{12}$

The solution is **2** _____.

3 ▶ Solve and check: $\frac{1}{3} + \frac{2}{x} = \frac{4}{3x}$

The solution is **−2** _____.

If a number makes an expression in an equation undefined, that number is

a **restricted value** _____ and **cannot** _____ be a solution.

Solving Rational Equations:

- Determine the LCD.

- Multiply each term in the equation by the LCD.

- Solve.

- Check the answer(s).