

**Objective:** to solve radical equations.

## Vocabulary:

**Radical Equation:** An equation with a radical symbol (square root, cube root, etc.).

**Extraneous Solution:** A solution that emerges from the process of solving the problem, but is not a valid solution within the context of the problem – it may lead to an undefined or imaginary answer.

## Steps for solving radical equations:

1. Isolate the radical on one side of the equation.
2. Square both sides to cancel the radical.
  - Note: You can have two answers when you take the square root of a number.
3. Solve for “x”.

**Examples:** Solve each of the following radical equations. Be sure to check your solutions.

a.  $2x = \sqrt{x + 5}$

b.  $x - 3 = \sqrt{x + 3}$