

Lesson 39 Solving Radical Equations

Vocabulary:

Radical Equations: an equation that has a variable under the square root.

Extraneous Solution: extra solutions that don't really work. These may come up when you square the variable in the equation.

Note:

- Opposite operations: $(\sqrt{x})^2 = x^1$
- $\sqrt{x} \neq$ a negative value.
- Always get the square root by itself first, then square both sides of the equation.

Examples: Solve the equations using opposite operations.

1. $\sqrt{x} - 5 = 4$

2. $\sqrt{x-3} = 4$

3. $\sqrt{2a+3} - 4 = 5$

Equations with two Radicals:

Examples: Solve the equations using opposite operations.

4. $\sqrt{3n-2} = \sqrt{n+6}$

5. $\sqrt{3t+4} = \sqrt{5t-6}$