Solving Equations Containing Radicals

Radical Equations: Equations with variables *in the* radicand

You will need to:

1) Isolate the radical on one side of equation if possible
2) Raise both sides to the second power

This will remove the radical and give a solution.

*In doing so, sometimes the solution is extraneous (does not satisfy the original equation).

***Therefore, you must

check all possible solutions

in the original equation and discard any extraneous solutions.

Solve:

$$\sqrt{v} = 5$$

Check:

Solve:

$$1 = \sqrt{n+10}$$

Check:

Solve:

$$\sqrt{25x} = 5$$

Check:

Solve:

$$9 = \sqrt{\frac{b}{8}}$$

Check:

Solve:

$$8 = \sqrt{x}$$

Check:

Solve:

$$4+\sqrt{x}=7$$

Check:

Solve:

$$\sqrt{\frac{v}{10}} = 0$$

Check:

Solve:

$$4+\sqrt{x}=10$$

Check:

Solve:

$$7 = \sqrt{n+1}$$

Check:

Solve:

$$\sqrt{a+1}+4=8$$

Check: