

Solving Equations Containing Radicals

Use the Get Rid of It Strategy

The strategy we'll use to solve equations containing radicals will be based on

$$\sqrt[n]{a} = b, \text{ then } a = b^n$$

Remember, when an index is not written. it is understood to be 2.

Algorithm for Solving Equations Containing Radicals

- 1. Isolate the radical**
- 2. Raise both sides to a power equal to the index**
- 3. Solve the resulting equation**
- 4. Always, always check your answer!**

Solve the following equations

1. $\sqrt{x} = 2$

2. $\sqrt{x} = 3$

3. $\sqrt{x+5} = 5$

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

5. $\sqrt{x-1} = 2$

6. $\sqrt[3]{x-2} = 3$

7. $\sqrt[4]{x-1} = 2$

8. $\sqrt{x} - 3 = 0$

9. $\sqrt{x} - 2 = 0$

10. $\sqrt{x} - 5 = 0$

