

Radical Equations

Procedure

1. Isolate the radical
2. Raise each side to the power of the index
3. Repeat step 2 if there is more than one radical
4. Solve the resulting equation
5. Check your answer

Solve the following equations

1. $\sqrt{x} + 5 = 12$

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

3. $\sqrt{5x-1} - 4 = 3$

4. $4\sqrt{x+3} - 2 = 18$

5. $5\sqrt{x-1} + 4 = 19$

6. $4\sqrt{x-3} = x$

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

8. $\sqrt{x^2-8} = 2-x$

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

10. $\sqrt{x-11} = \sqrt{x}+1$