

Intermediate Algebra Skill

Solving Index 2 Radical Equations: Radical on Both Sides

Solve the following Radical equations:

1) $\sqrt{2r-3} = \sqrt{r+3}$

2) $\sqrt{3x-2} = \sqrt{x+10}$

3) $\sqrt{4x+4} = \sqrt{6x-2}$

4) $\sqrt{4t+8} = 2\sqrt{t}$

5) $\sqrt{3x-5} = \sqrt{x+9}$

6) $\sqrt{3k+5} = 2\sqrt{k}$

7) $3\sqrt{x} = \sqrt{x+8}$

8) $\sqrt{3f-4} = 2\sqrt{3f-2}$

9) $2\sqrt{3b-5} - \sqrt{2b+10} = 0$

10) $2\sqrt{m+4} - \sqrt{7m+1} = 0$

11) $\sqrt{x} + 1 = \sqrt{x+11}$

12) $\sqrt{x+1} = 2 - \sqrt{x}$

13) $\sqrt{x+7} = 3 + \sqrt{x-8}$

14) $\sqrt{x+2} + \sqrt{3x+4} = 2$

15) $\sqrt{x} + \sqrt{x-9} = 1$

16) $\sqrt{2x+7} - \sqrt{x+15} = -1$

Answers to Solving Index 2 Radical Equations: Radical on Both Sides

- 1) 6
- 2) 6
- 3) 3
- 4) no solution
- 5) 7
- 6) 5
- 7) 1
- 8) no solution
- 9) 3
- 10) 5
- 11) 25
- 12) $9/16$
- 13) 9
- 14) -1
- 15) no solution
- 16) 1