



Algebra & Functions (Maths 201-016)

Equations Involving Radicals

Solve the following equations

	Answers
1. $\sqrt{x} = 6$	1. 36
2. $\sqrt{x} - 1 = 0$	2. 1
3. $\sqrt{2x} = 8$	3. 32
4. $3\sqrt{x} = 12$	4. 16
5. $-2\sqrt{x} + 14 = 0$	5. 49
6. $4\sqrt{x} = -1$	6. No solution.
7. $\sqrt{3x} + 6 = 0$	7. No solution.
8. $64 - 4\sqrt{x} = 0$	8. 256
9. $\sqrt{-3x} = 3$	9. -3
10. $\sqrt{3x+1} = 4$	10. 5
11. $\sqrt{3-2x} = 2$	11. $-\frac{1}{2}$
12. $\sqrt{x^2-2} = x+4$	12. $-\frac{9}{4}$
13. $\sqrt{x+3} = \sqrt{2x-1}$	13. 4
14. $\sqrt{3x+1} = \sqrt{x+15}$	14. 7
15. $\sqrt{3x-5} - 3\sqrt{x} = 0$	15. $-\frac{5}{6}$
16. $2\sqrt{x} - \sqrt{2x+10} = 0$	16. 5
17. $\sqrt{2x} = x-4$	17. 8
18. $x+2 = \sqrt{8x+1}$	18. 1, 3
19. $\sqrt{x} + 2 = x$	19. 4
20. $3 = x - 2\sqrt{x}$	20. 9
21. $\sqrt{3x+7} - 3 = x$	21. -1, -2
22. $\sqrt{4-12x} - 6 = 2x$	22. -1
23. $x = \sqrt{3-x} + 1$	23. 2
24. $\sqrt{x+7} - 5 = x$	24. -3
25. $x = \sqrt{x+44} - 2$	25. 5