

EXTRA PRACTICE 25
Solving Radical Equations
Use after Section 9.5

Name _____

Example: Solve. $\sqrt{x+3}-1=3$
 $\sqrt{x+3}=4$
 $(\sqrt{x+3})^2=4^2$
 $x+3=16$
 $x=13$

Check: $\sqrt{x+3}-1=3$

$\sqrt{13+3}-1$	3
$\sqrt{16}-1$	
$4-1$	
3	

The solution is 13.

Solve.

1. $\sqrt{x}=6$ _____

2. $\sqrt{x}=2.3$ _____

3. $\sqrt{x+5}=7$ _____

4. $\sqrt{2x+3}=5$ _____

5. $4+\sqrt{x-2}=6$ _____

6. $10-2\sqrt{5n}=0$ _____

7. $\sqrt{3x-8}=\sqrt{x+18}$ _____

8. $\sqrt{5x+3}=\sqrt{2x+9}$ _____

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

10. $\sqrt{3x}+5=0$ _____

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11. $x - 11 = \sqrt{x - 5}$ _____

12. $\sqrt{x + 15} = x + 3$ _____

13. $2\sqrt{x + 23} = x + 8$ _____

14. $x + 3 = 2\sqrt{x + 3}$ _____

15. $\sqrt{8x + 9} = x + 2$ _____

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

17. $x = 11 + 4\sqrt{x - 11}$ _____

18. $\sqrt{3x - 5} + 3 = x$ _____

19. $\sqrt{x^2 + 7} - x - 1 = 0$ _____

20. $\sqrt{x^2 + 13} - x = 1$ _____

21. $\sqrt{(a + 2)(a + 7)} = a + 4$

22. $\sqrt{(3x + 1)(x + 4)} = 2x + 2$
