

## Elementary Algebra Skill

### Setting Up and Solving Number Problems Leading to Radical Equations

Set up and solve.

1. The square root of a number is equal to 12. Find the number.
2. The square root of a number added to 4 gives 9. What is the number?
3. The difference of 21 and the square root of a number is 15. Find the number.
4. Twice the square root of a number gives 20. What is the number?
5. The quotient of 18 and the square root of a number is 3. Find the number.
6. The square root of a number less 10 yields  $-6$ . What is the number?
7. The square root of the sum of a number and 2 is 5. Find the number.
8. The square root of the difference of a number and 9 is 4. What is the number?
9. The square root of the sum of 3 and twice a number is 11. Find the number.
10. The square root of the difference of eleven times a number and 2 is 8. What is the number?
11. A number added to its square root gives 12. Find the number.
12. A number less its square root gives 20. What is the number?
13. A number increased by the square root of the sum of the number and 1 gives 11. Find the number.
14. A number subtracted from the square root of the difference of a number and 3 yields  $-3$ . Find the number.
15. Twice a number plus the square root of the sum of three times the number and 4 gives  $-1$ . Find the number.

### **Answers to Setting Up and Solving Number Problems Leading to Radical Equations**

- 1) 144
- 2) 25
- 3) 36
- 4) 100
- 5) 36
- 6) 16
- 7) 23
- 8) 25
- 9) 59
- 10) 6
- 11) 9
- 12) 25
- 13) 8
- 14) 3 or 4
- 15) - 1