Elementary Algebra Skill

Solving Quadratic Equations: Square Root Law

Solve each equation by taking square roots.

1) $r^2 = 96$

2) $x^2 = 7$

3) $x^2 = 29$

4) $r^2 = 78$

5) $b^2 = 34$

6) $x^2 = 0$

7) $a^2 + 1 = 2$

8) $n^2 - 4 = 77$

9) $m^2 + 7 = 6$

10) $x^2 - 1 = 80$

11) $4x^2 - 6 = 74$

12) $3m^2 + 7 = 301$

13) $7x^2 - 6 = 57$

14) $10x^2 + 9 = 499$

15) $(p - 4)^2 = 16$

16) $(2k - 1)^2 = 9$

17) $(6x + 2)^2 + 4 = 28$

18) $10(x - 7)^2 = 440$

19) $9(2m - 3)^2 + 8 = 449$

20) $4(6x - 1)^2 - 5 = 223$

Answers to Solving Quadratic Equations: Square Root Law

1) $\{4\sqrt{6}, -4\sqrt{6}\}$
2) $\{\sqrt{7}, -\sqrt{7}\}$
3) $\{\sqrt{29}, -\sqrt{29}\}$
4) $\{\sqrt{78}, -\sqrt{78}\}$
5) $\{\sqrt{34}, -\sqrt{34}\}$
6) $\{0\}$
7) $\{1, -1\}$
8) $\{9, -9\}$
9) No solution.
10) $\{9, -9\}$
11) $\{2\sqrt{5}, -2\sqrt{5}\}$
12) $\{7\sqrt{2}, -7\sqrt{2}\}$
13) $\{3, -3\}$
14) $\{7, -7\}$
15) $\{0, 8\}$
16) $\{2, -1\}$
17) $\{\frac{-1+\sqrt{6}}{3}, \frac{-1-\sqrt{6}}{3}\}$
18) $\{7 + 2\sqrt{11}, 7 - 2\sqrt{11}\}$
19) $\{5, -2\}$
20) $\{\frac{1+\sqrt{57}}{6}, \frac{1-\sqrt{57}}{6}\}$