

Solving Equations with Square Roots

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Solve each equation by taking square roots.

1) $x^2 = -59$

2) $n^2 = 0$

3) $x^2 = 75$

4) $x^2 = 9$

5) $r^2 = 38$

6) $9n^2 = 729$

7) $v^2 + 9 = 96$

8) $n^2 + 10 = 74$

9) $a^2 - 8 = 40$

10) $25b^2 = 4$

11) $3n^2 - 6 = 51$

12) $36x^2 - 3 = -2$

13) $16n^2 + 8 = 17$

14) $10m^2 + 2 = -174$

15) $3 - 10x^2 = -5$

16) $-9 - 9b^2 = -153$

17) $10r^2 - 3 = 997$

18) $4m^2 + 5 = 353$

19) $5k^2 - 2 = 58$

20) $-8 - 6x^2 = -24$

Answers to Solving Equations with Square Roots (ID: 1)

1) No solution.

5) $\{\sqrt{38}, -\sqrt{38}\}$

9) $\{4\sqrt{3}, -4\sqrt{3}\}$

13) $\left\{\frac{3}{4}, -\frac{3}{4}\right\}$

17) $\{10, -10\}$

2) $\{0\}$

6) $\{9, -9\}$

10) $\left\{\frac{2}{5}, -\frac{2}{5}\right\}$

14) No solution.

18) $\{\sqrt{87}, -\sqrt{87}\}$

3) $\{5\sqrt{3}, -5\sqrt{3}\}$

7) $\{\sqrt{87}, -\sqrt{87}\}$

11) $\{\sqrt{19}, -\sqrt{19}\}$

15) $\left\{\frac{2\sqrt{5}}{5}, -\frac{2\sqrt{5}}{5}\right\}$

19) $\{2\sqrt{3}, -2\sqrt{3}\}$

4) $\{3, -3\}$

8) $\{8, -8\}$

12) $\left\{\frac{1}{6}, -\frac{1}{6}\right\}$

16) $\{4, -4\}$

20) $\left\{\frac{2\sqrt{6}}{3}, -\frac{2\sqrt{6}}{3}\right\}$