

**Solve Quadratics by Taking Square Roots**

Solve the quadratic equations by taking square roots. Remember, if  $x^2 = n$  then  $x = \pm\sqrt{n}$ .

1.  $x^2 = 64$

2.  $z^2 = 100$

3.  $c^2 = 12$

4.  $w^2 = 300$

5.  $a^2 + 5 = 30$

6.  $2x^2 + 1 = 21$

7.  $(h + 4)^2 = 5$

8.  $(v - 2)^2 = 9$

9.  $2(p + 3)^2 = 10$

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10.  $(2p + 3)^2 = 10$

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11.  $4(x - 11)^2 - 5 = 31$

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12.  $-2(x + 5)^2 - 7 = -3$

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**Answer Section**

1.  $x = \pm 8$
2.  $z = \pm 10$
3.  $c = \pm 2\sqrt{3}$
4.  $x = 10\sqrt{3}$
5.  $a = \pm 5$
6.  $x = \pm\sqrt{10}$
7.  $h = -4 \pm \sqrt{5}$
8.  $v = 2 \pm 3 = 5$  or  $-1$
9.  $p = -3 \pm \sqrt{5}$
10.  $p = \frac{3 \pm \sqrt{10}}{2}$
11.  $x = 11 \pm 3 = 14$  or  $8$
12.  $x = 5 \pm \sqrt{5}$