Algebra 1 Name_____

# Solve by Taking Square Roots

Date_____

**Solve each equation by taking square roots.**

1) $r^2 = 25$

2) $n^2 = 4$

3) $n^2 - 2 = 81$

4) $r^2 - 2 = 28$

5) $-10x^2 = -250$

6) $6n^2 = 438$

7) $n^2 + 2 = 68$

8) $-5n^2 = -125$

9) $8n^2 + 2 = 154$

10) $16n^2 + 1 = 37$

11) $5m^2 - 4 = 316$

12) $5b^2 + 9 = 254$

13) $7x^2 + 6 = -23$

14) $9n^2 - 9 = 40$

15) $2(x - 4)^2 + 4 = 0$

16) $(x + 3)^2 - 2 = 0$

17) $\frac{1}{2}(x - 2)^2 + 2 = 0$

18) $-(x - 3)^2 - 4 = 0$

# Answers to Solve by Taking Square Roots

1) $\{5, -5\}$

2) $\{2, -2\}$

3) $\{\sqrt{83}, -\sqrt{83}\}$

4) $\{\sqrt{30}, -\sqrt{30}\}$

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

6) $\{\sqrt{73}, -\sqrt{73}\}$

7) $\{\sqrt{66}, -\sqrt{66}\}$

8) $\{5, -5\}$

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

10) $\{\frac{3}{2}, -\frac{3}{2}\}$

11) $\{8, -8\}$

12) $\{7, -7\}$

13) No solution.

14) $\{\frac{7}{3}, -\frac{7}{3}\}$

15) No solution

16) $\{-3 + \sqrt{2}, -3 - \sqrt{2}\}$

17) No solution

18) No solution