

4.8C Solving Quadratic Equations w/Complex Solutions

Period _____

I. Solve each equation by taking square roots.

1) $3x^2 + 7 = -30$

2) $3n^2 + 9 = 3$

3) $6r^2 - 7 = -85$

4) $7m^2 + 8 = -123$

II. Solve each equation by completing the square. Do not skip any steps. Show ALL work.

5) $n^2 - 16n + 92 = -3$

6) $v^2 - 10v + 63 = -7$

7) $x^2 - 18x + 96 = 4$

8) $4n^2 + 16n - 43 = -10$

9) $2k^2 + 8k + 61 = -5$

10) $3n^2 - 6n + 51 = 3$

Solve each equation with the quadratic formula.

11) $8k^2 - 11k - 3 = -12$

12) $5x^2 - 11x + 14 = 7$

13) $7k^2 - 11k + 21 = 10$

14) $12n^2 + 9n + 14 = 3$