Math 2 Name_____

Unit 4.2 Solve by Completing the square Practice

Period____

Solve each equation by completing the square.

1) $x^2 + 16x - 36 = 0$

$\{2, -18\}$

2) $v^2 + 20v - 21 = 0$

$\{1, -21\}$

3) $5p^2 - 10p - 15 = 0$

$\{3, -1\}$

4) $8x^2 - 16x - 84 = 0$

$\{1 + \frac{\sqrt{46}}{2}, 1 - \frac{\sqrt{46}}{2}\}$

5) $n^2 + 18n + 25 = 8$

$\{-1, -17\}$

6) $x^2 - 20x + 56 = -9$

$\{10 + \sqrt{35}, 10 - \sqrt{35}\}$

7) $10n^2 + 20n - 21 = 9$

$\{1, -3\}$

8) $8p^2 - 16p - 44 = -2$

$\{\frac{7}{2}, -\frac{3}{2}\}$

9) $x^2 = -4x + 96$

$\{8, -12\}$

10) $x^2 + 20x = 69$

$\{3, -23\}$

11) $8b^2 - 24 = -16b$

$\{1, -3\}$

12) $8x^2 - 60 = 16x$

$\left\{\frac{2 + \sqrt{34}}{2}, \frac{2 - \sqrt{34}}{2}\right\}$

13) $-7x^2 - 42 = 12x - 8x^2$

$\{6 + \sqrt{78}, 6 - \sqrt{78}\}$

14) $r^2 - 20r - 18 = 1$

$\{10 + \sqrt{119}, 10 - \sqrt{119}\}$

15) $5k^2 + 29k - 85 = 9k$

$\{-2 + \sqrt{21}, -2 - \sqrt{21}\}$

16) $10x^2 - 19x - 25 = x + 5$

$\{3, -1\}$