SM2 6.2: Completing the Square Part 2

Name_____ ID: 1

Date_____ Period____

Solve each equation by completing the square.

1) $10r^2 + 20r + 20 = 0$

$\{-1 + i, -1 - i\}$

2) $6p^2 + 12p + 66 = 0$

$\{-1 + i\sqrt{10}, -1 - i\sqrt{10}\}$

4) $3v^2 - 12v - 45 = 0$

$\{2 + \sqrt{19}, 2 - \sqrt{19}\}$

3) $5p^2 - 10p - 75 = 0$

$\{5, -3\}$

5) $2x^2 - 8x - 10 = 0$

$\{5, -1\}$

6) $2n^2 + 16n + 30 = 0$

$\{-3, -5\}$

7) $2x^2 - 14x + 10 = 0$

$\{\dfrac{7 + \sqrt{29}}{2}, \dfrac{7 - \sqrt{29}}{2}\}$

8) $5m^2 - 20m - 49 = 6$

$\{2 + \sqrt{15}, 2 - \sqrt{15}\}$

9) $7n^2 - 14n - 64 = -8$

$\{4, -2\}$

10) $2k^2 - 4k - 104 = -16k$

$\{-3 + \sqrt{61}, -3 - \sqrt{61}\}$