

Completing the Square

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Date _____ Period _____

Solve each equation by completing the square.

1) $n^2 - 10n + 16 = -8$

2) $r^2 + 2r - 11 = 5$

3) $a^2 - 8a - 68 = -10$

4) $p^2 + 20p + 82 = 7$

5) $b^2 + 6b + 13 = 8$

6) $x^2 - 6x - 32 = -5$

7) $m^2 - 18m + 48 = 2$

8) $n^2 - 14n - 44 = 7$

9) $k^2 - 14k + 41 = 8$

10) $x^2 - 4x - 68 = 9$

Answers to Completing the Square

1) $\{6, 4\}$

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

9) $\{11, 3\}$

2) $\{3.123, -5.123\}$

6) $\{9, -3\}$

10) $\{11, -7\}$

3) $\{12.602, -4.602\}$

7) $\{14.916, 3.084\}$

4) $\{-5, -15\}$

8) $\{17, -3\}$