

Completing the Square Practice

Date _____ Period _____

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Find the value that completes the square and then rewrite as a perfect square.

1) $x^2 - 20x + \underline{\quad}$

2) $p^2 - 8p + \underline{\quad}$

3) $x^2 - 9x + \underline{\quad}$

4) $x^2 + 6x + \underline{\quad}$

5) $z^2 + 5z + \underline{\quad}$

Solve each equation by completing the square.

6) $n^2 + 10n - 11 = 0$

7) $r^2 + 12r - 18 = 0$

8) $a^2 - 14a + 48 = 0$

9) $x^2 + 2x - 9 = 0$

10) $v^2 + 10v + 9 = 0$

11) $4x^2 + 16x - 45 = 8$

$$12) 7n^2 + 14n - 50 = 6$$

$$13) 3p^2 - 12p - 73 = -10$$

$$14) 2x^2 - 8x - 45 = 10$$

$$15) 10k^2 + 20k - 84 = -4$$

$$16) 6r^2 + 12r - 47 = 1$$

$$17) 2m^2 - 94 = -10 - 12m$$

$$18) 3n^2 + 18n - 27 = -6n^2$$

$$19) 8x^2 - 91 = -16x - 6$$

$$20) 7x^2 + 14x = 21$$