Name: _____

Solving Quadratic Functions by Completing the Square

Directions: Solve each equation by completing the square

(1). $(x+9)^2 = 16$

(2). $x^2 - 6x + 9 = 25$

(3). $x^2 + 14 = 9x$

(4). $x^2 + 8x + 2 = 22$

(5). $a^2 + 6a + 10 = 2$

(6). $m^2 - 3m + 18 = 5m + 3$

(7). $p^2 - 9p = -21 + p$

(8). $3n^2 = 2n^2 - 15n - 14$

(9). $t^2 - 12t + 35 = 0$

(10). $y^2 = 4y + 12$

(11). $20 = 65 + x^2 - 14x$

(12). $10m^2 + 9m - 25 = 9m^2 - 2m - 49$

ANSWER KEY

(1). $x = 13, x = 5$

(2). $x = 8, x = -2$

(3). $x = 7, x = 2$

(4). $x = 2, x = -10$

(5). $a = -2, a = -4$

(6). $m = 3, m = 5$

(7). $p = -3, p = -7$

(8). $n = -1, n = -14$

(9). $t = 7, t = 5$

(10). $y = 6, y = -2$

(11). $x = 9, x = 5$

(12). $m = -3, m = -8$