

Completing the Square Homework

Date _____ Period _____

Find the vertex form of the equation and the zeros for each problem.

1) $v^2 - 8v - 84 = 0$

2) $b^2 + 16b + 4 = 0$

3) $x^2 + 6x + 8 = 0$

4) $x^2 + 18x + 45 = 0$

5) $p^2 - 12p + 20 = 0$

6) $p^2 - 10p + 12 = 10$

7) $a^2 - 18a + 53 = 8$

8) $v^2 - 2v - 70 = -7$

9) $v^2 - 10v - 2 = -5$

10) $r^2 + 18r - 36 = 4$

Completing the Square Homework

Date _____ Period _____

Find the vertex form of the equation and the zeros for each problem.

1) $v^2 - 8v - 84 = 0$

$\{14, -6\}$

2) $b^2 + 16b + 4 = 0$

$\{-8 + 2\sqrt{15}, -8 - 2\sqrt{15}\}$

3) $x^2 + 6x + 8 = 0$

$\{-2, -4\}$

4) $x^2 + 18x + 45 = 0$

$\{-3, -15\}$

5) $p^2 - 12p + 20 = 0$

$\{10, 2\}$

6) $p^2 - 10p + 12 = 10$

$\{5 + \sqrt{23}, 5 - \sqrt{23}\}$

7) $a^2 - 18a + 53 = 8$

$\{15, 3\}$

8) $v^2 - 2v - 70 = -7$

$\{9, -7\}$

9) $v^2 - 10v - 2 = -5$

$\{5 + \sqrt{22}, 5 - \sqrt{22}\}$

10) $r^2 + 18r - 36 = 4$

$\{2, -20\}$