Seminar - Work 1 Mr. Pineda

Name: _____

Solve each equation by completing the square.

1) $p^2 + 14p - 38 = 0$

2) $v^2 + 6v - 59 = 0$

3) $a^2 + 14a - 51 = 0$

4) $x^2 - 12x + 11 = 0$

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

6) $n^2 - 2n - 3 = 0$

7) $x^2 + 14x - 15 = 0$

8) $k^2 - 12k + 23 = 0$

9) $r^2 - 4r - 91 = 7$

10) $x^2 - 10x + 26 = 8$

11) $k^2 - 4k + 1 = -5$

12) $b^2 + 2b = -20$

Vocabulary: Roots, X-intercept, Imaginary Roots, Real Roots

Language Objective: To allow the students to select one question and explain each step that leads to the solution while using all the vocabulary words.

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Possible Answers

1) $\{11, 1\}$

2) $\{1, -15\}$

3) $\{-1 + i\sqrt{19}, -1 - i\sqrt{19}\}$

4) $\{-7 + \sqrt{87}, -7 - \sqrt{87}\}$

5) $\{2 + i\sqrt{2}, 2 - i\sqrt{2}\}$

6) $\{-3 + 2\sqrt{17}, -3 - 2\sqrt{17}\}$

7) $\{3, -17\}$

8) $\{5 + \sqrt{7}, 5 - \sqrt{7}\}$

9) $\{-2, -4\}$

10) $\{2 + \sqrt{102}, 2 - \sqrt{102}\}$

11) $\{6 + \sqrt{13}, 6 - \sqrt{13}\}$

12) $\{3, -1\}$

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