

Q2 HW5 - All work on looseleaf (except #15).

Date_____ Period_____

Solve each equation by completing the square. Answers are to be exact (and simplified of course). Checks are required but when the solution has a conjugate, you only need to check one of the solutions.

1) $n^2 - 6n - 3 = 4$

2) $x^2 + 16x - 47 = 10$

3) $x^2 - 10x + 18 = -3$

4) $v^2 + 8v + 22 = 2$

5) $4n^2 - 8n - 8 = -3$

6) $4x^2 - 8x + 13 = -3$

7) $5x^2 - 10x - 18 = -3$

8) $2x^2 - 4x + 3 = -2$

9) $2x^2 + 8x + 8 = -4$

10) $2n^2 - 4n - 5 = -3$

11) $3k^2 - 5 = 2k$

12) $3p^2 - 2 = p$

Find the value of the discriminant of each quadratic equation.

13) $-4v^2 + 2v - 17 = -9$

14) $3b^2 - 8b + 17 = 8$

15) Describe what it means if the value of the discriminant is a perfect square and what it means if the value of the discriminant is zero. This is an essay question and your answer may be written on this worksheet.