Name_____

Imaginary Solutions & The Quadratic Formula   Date_____ Period____

Use the discriminant to determine the number of real solutions to each equation.

1) $4n^2 + 8n + 4 = 0$

2) $8p^2 + 8p + 4 = 0$

3) $10x^2 - 4x + 2 = 7$

4) $3b^2 - b + 10 = 5b + 7$

Solve each equation by taking square roots.

5) $6 - 4m^2 = -26$

6) $4 + 4x^2 = 104$

7) $6x^2 + 8 = -58$

8) $3x^2 + 9 = -15$

Solve each equation with the quadratic formula.

9) $3p^2 + 8p - 60 = 0$

10) $2n^2 + 10n - 17 = 11$

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

12) $5x^2 - 9x + 14 = 4$