

The Discriminant and the Quadratic Formula

Date _____ Period _____

Find the discriminant of each quadratic equation then state the number and type of solutions.

1) $-2x^2 - 6x - 6 = 0$

2) $-4m^2 - 4m - 1 = 0$

3) $-6b^2 - 5b - 3 = 0$

4) $-4p^2 + 4p - 1 = 0$

5) $-2k^2 - 4k = 0$

6) $4n^2 - n = 0$

Solve each equation with the quadratic formula.

7) $b^2 + 11b - 80 = 0$

8) $4p^2 + 7p - 15 = 0$

9) $p^2 + 6p - 40 = 0$

10) $k^2 + 10k - 24 = 0$

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

12) $2n^2 - 9n = 26$

13) $2p^2 - 30 = -4p$

14) $2n^2 + 11n = 138$