SM2 6.3: Quadratic Formula

Name_____ ID: 1

Date_____ Period____

Solve each equation with the quadratic formula.

1) $4x^2 + 11 = 0$

2) $10k^2 + 9k - 10 = 0$

3) $8a^2 - 10a - 2 = 0$

4) $2x^2 - 6x + 8 = 0$

5) $2n^2 - 19 = -8$

6) $-x^2 + 4x - 13 = -9$

7) $-6p^2 + 4p + 28 = 4$

8) $-m^2 - 10m - 29 = -5$

9) $7b^2 + 2 = -7b$

10) $2x^2 + 6x = 80$

11) $11r^2 + 2 = -3r$

12) $-7n^2 + 12n = 12$

13) $-4n^2 + 15 = 0$

14) $-17v^2 - 11 + 9v = -5v^2 + 9v$

15) $12a^2 + 2a - 9 = -5a$

16) $-12x^2 + 12 = -2x$

17) $\dfrac{1}{3}x^2 + 4x - 9 = 7$

18) $-\dfrac{4}{5}x^2 - 2x - \dfrac{7}{5} = 0$

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

19) $2x^2 - 4x + 2 = 0$

20) $-6k^2 + 6k = 0$

21) $-2n^2 - 8n - 6 = 2$

22) $x^2 - 6x - 1 = -10$

23) $-3m^2 - 7m - 14 = -7$

24) $4p^2 + 4p - 6 = -7$