

10-4 Quadratic Equations - Discriminant (ver1)_hw Date _____ Period _____

Find the discriminant and state the number of solutions.

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

2) $4a^2 + 7a + 7 = 0$

3) $4p^2 - 5p + 7 = 0$

4) $-x^2 - 7x - 6 = 0$

5) $-b^2 - 4b = 3$

6) $-n^2 - 2n - 5 = -4$

7) $-m^2 + 4m = 4$

8) $m^2 + 11 = 5$

9) $-5v^2 = -3v$

10) $-8b^2 - 2 = 8b$

11) $7x^2 - 4x = -7$

12) $3m^2 + 6m = -3$

13) $4x^2 - 5x = 0$

14) $4p^2 = -3p$

15) $-7a^2 = -6a + 4$

16) $k^2 = 2k - 1$

17) $6x^2 + 7 = 3 + 5x^2 - 4x$

18) $4k^2 + 2k + 4 = -5k$

19) $x^2 + 8x = -1 - 6x^2$

20) $7m^2 - 8m = -7m - 3$

Answers to 10-4 Quadratic Equations - Discriminant (ver1)_hw

- 1) 0; one real solution
- 2) -63; two imaginary solutions
- 3) -87; two imaginary solutions
- 4) 25; two real solutions
- 5) 4; two real solutions
- 6) 0; one real solution
- 7) 0; one real solution
- 8) -24; two imaginary solutions
- 9) 9; two real solutions
- 10) 0; one real solution
- 11) -180; two imaginary solutions
- 12) 0; one real solution
- 13) 25; two real solutions
- 14) 9; two real solutions
- 15) -76; two imaginary solutions
- 16) 0; one real solution
- 17) 0; one real solution
- 18) -15; two imaginary solutions
- 19) 36; two real solutions
- 20) -83; two imaginary solutions