Quadratic Formula & Disc Review HW Name_____ ID: 1

Date_____ Period____

Find the value of the discriminant of each quadratic equation.

1) $-4x^2 = -7 - 2x$

2) $7p^2 = 3 - 10p$

3) $x^2 = -6 - 10x$

4) $6k^2 - k = -9$

5) $9n^2 + 8 = -9n$

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

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

7) $8v^2 - 8v - 1 = 8$

8) $-7x^2 - 4x - 18 = -8$

9) $8x^2 + 7x - 14 = -4$

10) $5n^2 - 10n - 11 = -8$

Solve each equation with the quadratic formula.

11) $7p^2 = 2p + 17$

12) $4r^2 + 9r = 18$

13) $x^2 = 16$

14) $5x^2 - 10x = 9$

15) $4x^2 + 1 = 6x$

16) $8x^2 = 11$

17) $10n^2 = -3n + 6$

18) $7a^2 = 24 + a$

19) $4n^2 - 4n = 8$

20) $a^2 = 64$

Answers to (ID: 1)

1) 116
2) 184
3) 76
4) –215
5) –207
6) One
7) Two
8) None
9) Two
10) Two
11) $\{1.708, -1.422\}$
12) $\{1.276, -3.526\}$
13) $\{4, -4\}$
14) $\{2.673, -0.673\}$
15) $\{1.309, 0.191\}$
16) $\{1.173, -1.173\}$
17) $\{0.639, -0.939\}$
18) $\{1.924, -1.782\}$
19) $\{2, -1\}$
20) $\{8, -8\}$