Algebra 1 Name_____

Discriminant Worksheet

Date_____ Period____

Find the value of the discriminant of each quadratic equation.

1) $-4m^2 - 3m + 3 = -6$

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

3) $-7p^2 + 4p = 9$

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

5) $10r^2 - 6r + 10 = 10$

6) $-5n^2 + 6n + 12 = 2$

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

8) $4n^2 - 7n + 6 = 4$

9) $8x^2 + 3x + 3 = 4$

10) $-4k^2 - 4k + 6 = -4$

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

11) $-2x^2 - 6x - 7 = -7$

12) $-4r^2 + 8r + 3 = 7$

13) $-9x^2 + 6x + 7 = 8$

14) $2m^2 + 2m - 6 = -6$

15) $-4b^2 - 3b + 14 = 4$

16) $-x^2 + 9x + 6 = 6$

17) $-x^2 + 4x - 10 = -6$

18) $-5n^2 + n + 1 = 6$

19) $p^2 - 2p - 9 = -10$

20) $4k^2 + 4k + 3 = 2$

Algebra 1 Name_____

Discriminant Worksheet

Date_____ Period____

Find the value of the discriminant of each quadratic equation.

1) $-4m^2 - 3m + 3 = -6$

153

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

264

3) $-7p^2 + 4p = 9$

–236

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

97

5) $10r^2 - 6r + 10 = 10$

36

6) $-5n^2 + 6n + 12 = 2$

236

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

329

8) $4n^2 - 7n + 6 = 4$

17

9) $8x^2 + 3x + 3 = 4$

41

10) $-4k^2 - 4k + 6 = -4$

176

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

11) $-2x^2 - 6x - 7 = -7$

36; two real solutions

12) $-4r^2 + 8r + 3 = 7$

0; one real solution

13) $-9x^2 + 6x + 7 = 8$

0; one real solution

14) $2m^2 + 2m - 6 = -6$

4; two real solutions

15) $-4b^2 - 3b + 14 = 4$

169; two real solutions

16) $-x^2 + 9x + 6 = 6$

81; two real solutions

17) $-x^2 + 4x - 10 = -6$

0; one real solution

18) $-5n^2 + n + 1 = 6$

–99; two imaginary solutions

19) $p^2 - 2p - 9 = -10$

0; one real solution

20) $4k^2 + 4k + 3 = 2$

0; one real solution