

Extra Credit Quadratic Formula

Find the value of the discriminant of each quadratic equation.

1) $-2x^2 - x - 5 = 0$

2) $7x^2 - 3x - 3 = 0$

3) $-10v^2 + 6v - 10 = 0$

4) $-4x^2 - 4x + 10 = 0$

5) $-10n^2 + 7n + 3 = 0$

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

7) $-3k^2 + 7k - 8 = 0$

8) $3n^2 - n - 6 = 0$

9) $6r^2 - 6r - 7 = 0$

10) $10x^2 - 9x + 5 = 0$

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

11) $2m^2 + 5m + 3 = 0$

12) $6x^2 + x - 2 = 0$

13) $4m^2 - 3 = 0$

14) $-2r^2 - 4r - 2 = 0$

15) $-9k^2 + k - 4 = 0$

16) $-8n^2 + 10n - 7 = 0$

17) $-10n^2 + 7n - 6 = 0$

18) $-10b^2 - 7b - 2 = 0$

19) $-8x^2 - 2x - 10 = 0$

20) $7k^2 + 10k + 8 = 0$

Solve each equation with the quadratic formula.

21) $2k^2 - 6k - 20 = 0$

22) $5n^2 - 8n - 13 = 0$

23) $2x^2 - 9x - 35 = 0$

24) $7k^2 + 8k - 7 = 0$

25) $x^2 + 4x - 96 = 0$

26) $a^2 + 12a + 32 = 0$

27) $4p^2 - 9p + 2 = 0$

28) $x^2 + 3x - 15 = 0$

29) $10n^2 - 17 = 0$

30) $5b^2 + 12b + 12 = 0$