Math 2   Name_____

Unit 4.3 Solve by Quadratic Formula Examples

Solve each equation with the quadratic formula.

1) $2k^2 - 7k - 4 = 0$

2) $3m^2 + 2m - 1 = 0$

3) $4x^2 + 11x - 108 = 0$

4) $6n^2 - 6n - 36 = 0$

5) $4x^2 - 2x - 9 = 3$

6) $-3k^2 + 39 = -9$

7) $-2p^2 = -55 - p$

8) $3m^2 + 2m = 133$

9) $11n^2 + 3n - 132 = 4n + 10n^2$

10) $4m^2 + 11m = 11m + 49$

11) $10n^2 - 21 = 0$

12) $8x^2 - 16 = 0$

13) $-5x^2 + 24 = 0$

14) $-11p^2 + 7p - 1 = 0$

15) $12k^2 - 12k - 6 = -5$

16) $-2v^2 + 5v = -6$

17) $-12a^2 = -6$

18) $-7x^2 + 5 = 8x$

19) $-4k^2 - 11k - 26 = -k - 6 - 10k^2$

20) $n^2 - 7n - 31 = -11n - 11$

Math 2   Name_____
Unit 4.3 Solve by Quadratic Formula Examples

Solve each equation with the quadratic formula.

1) $2k^2 - 7k - 4 = 0$

$$\left\{4, -\frac{1}{2}\right\}$$

2) $3m^2 + 2m - 1 = 0$

$$\left\{\frac{1}{3}, -1\right\}$$

3) $4x^2 + 11x - 108 = 0$

$$\left\{4, -\frac{27}{4}\right\}$$

4) $6n^2 - 6n - 36 = 0$

$$\{3, -2\}$$

5) $4x^2 - 2x - 9 = 3$

$$\left\{2, -\frac{3}{2}\right\}$$

6) $-3k^2 + 39 = -9$

$$\{-4, 4\}$$

7) $-2p^2 = -55 - p$

$$\left\{-5, \frac{11}{2}\right\}$$

8) $3m^2 + 2m = 133$

$$\left\{\frac{19}{3}, -7\right\}$$

9) $11n^2 + 3n - 132 = 4n + 10n^2$

$$\{12, -11\}$$

10) $4m^2 + 11m = 11m + 49$

$$\left\{\frac{7}{2}, -\frac{7}{2}\right\}$$

11) $10n^2 - 21 = 0$

$$\left\{ \frac{\sqrt{210}}{10}, -\frac{\sqrt{210}}{10} \right\}$$

12) $8x^2 - 16 = 0$

$$\left\{ \sqrt{2}, -\sqrt{2} \right\}$$

13) $-5x^2 + 24 = 0$

$$\left\{ -\frac{2\sqrt{30}}{5}, \frac{2\sqrt{30}}{5} \right\}$$

14) $-11p^2 + 7p - 1 = 0$

$$\left\{ \frac{7 - \sqrt{5}}{22}, \frac{7 + \sqrt{5}}{22} \right\}$$

15) $12k^2 - 12k - 6 = -5$

$$\left\{ \frac{3 + 2\sqrt{3}}{6}, \frac{3 - 2\sqrt{3}}{6} \right\}$$

16) $-2v^2 + 5v = -6$

$$\left\{ \frac{5 - \sqrt{73}}{4}, \frac{5 + \sqrt{73}}{4} \right\}$$

17) $-12a^2 = -6$

$$\left\{ -\frac{\sqrt{2}}{2}, \frac{\sqrt{2}}{2} \right\}$$

18) $-7x^2 + 5 = 8x$

$$\left\{ \frac{-4 - \sqrt{51}}{7}, \frac{-4 + \sqrt{51}}{7} \right\}$$

19) $-4k^2 - 11k - 26 = -k - 6 - 10k^2$

$$\left\{ \frac{5 + \sqrt{145}}{6}, \frac{5 - \sqrt{145}}{6} \right\}$$

20) $n^2 - 7n - 31 = -11n - 11$

$$\left\{ -2 + 2\sqrt{6}, -2 - 2\sqrt{6} \right\}$$