Math 2   Name_____

Unit 4.3 Solve by Quadratic Formula Practice

Solve each equation with the quadratic formula.

1) $2n^2 - 3n - 90 = 0$

$$\left\{\frac{15}{2}, -6\right\}$$

2) $4k^2 + k - 39 = 0$

$$\left\{3, -\frac{13}{4}\right\}$$

3) $4v^2 - v - 68 = 0$

$$\left\{\frac{17}{4}, -4\right\}$$

4) $2r^2 + 12r + 10 = 0$

$$\{-1, -5\}$$

5) $5a^2 + 4a + 3 = 12$

$$\left\{1, -\frac{9}{5}\right\}$$

6) $6x^2 + 3x - 131 = 4$

$$\left\{\frac{9}{2}, -5\right\}$$

7) $x^2 = 36 - 5x$

$$\{4, -9\}$$

8) $-5v^2 - v = -120$

$$\left\{-5, \frac{24}{5}\right\}$$

9) $4x^2 + 2 = -4x + 1$

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

10) $-4k^2 = -4k - 143$

$$\left\{-\frac{11}{2}, \frac{13}{2}\right\}$$

11) $-7v^2 + 2v + 18 = 0$

$$\left\{ \frac{1 - \sqrt{127}}{7}, \frac{1 + \sqrt{127}}{7} \right\}$$

12) $12n^2 - 11n - 9 = 0$

$$\left\{ \frac{11 + \sqrt{553}}{24}, \frac{11 - \sqrt{553}}{24} \right\}$$

13) $3x^2 + 8x - 2 = 0$

$$\left\{ \frac{-4 + \sqrt{22}}{3}, \frac{-4 - \sqrt{22}}{3} \right\}$$

14) $6n^2 + 6n - 16 = 0$

$$\left\{ \frac{-3 + \sqrt{105}}{6}, \frac{-3 - \sqrt{105}}{6} \right\}$$

15) $10x^2 - 6x - 12 = 12$

$$\left\{ \frac{3 + \sqrt{249}}{10}, \frac{3 - \sqrt{249}}{10} \right\}$$

16) $-11r^2 + 18 = -3$

$$\left\{ -\frac{\sqrt{231}}{11}, \frac{\sqrt{231}}{11} \right\}$$

17) $-11a^2 + 8 = -10a$

$$\left\{ \frac{5 - \sqrt{113}}{11}, \frac{5 + \sqrt{113}}{11} \right\}$$

18) $-6x^2 = -9$

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

19) $4v^2 + 5v - 10 = -5v^2$

$$\left\{ \frac{-5 + \sqrt{385}}{18}, \frac{-5 - \sqrt{385}}{18} \right\}$$

20) $8n^2 + 10n = 10 - n^2$

$$\left\{ \frac{-5 + \sqrt{115}}{9}, \frac{-5 - \sqrt{115}}{9} \right\}$$