Alg $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ Name_____

10-4 Quadratic Equations - Solve with Quadratic Formula (ver2)_hw Period____

Solve each equation with the quadratic formula.

1) $n^2 + n - 10 = 0$

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

3) $3x^2 - 5x - 3 = 0$

4) $2n^2 + n - 8 = 0$

5) $2x^2 - 3x + 1 = 2$

6) $3n^2 + 3n = 2$

7) $v^2 - 4v - 3 = 2$

8) $2x^2 + 2x - 17 = -5$

9) $2p^2 = 3p + 3$

10) $3k^2 - 1 = -k$

11) $m^2 - 3m + 7 = 4$

12) $2n^2 - 4 = 0$

13) $2m^2 - 5 = 0$

14) $4n^2 - 2n - 3 = -4$

15) $3n^2 + 3n - 3 = 0$

16) $2p^2 - 2p - 3 = 0$

17) $4m^2 - 4m - 7 = 3$

18) $3n^2 - 2n - 4 = 5$

19) $r^2 + 2r = 10$

20) $2m^2 = 8 + 4m$

21) $p^2 - 4p - 1 = 5$

22) $k^2 + 4k + 6 = 5$

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

24) $3n^2 = n^2 + 8$

Answers to 10-4 Quadratic Equations - Solve with Quadratic Formula (ver2)_hw

1) $\left\{\frac{-1+\sqrt{41}}{2}, \frac{-1-\sqrt{41}}{2}\right\}$ 2) $\left\{\frac{3+\sqrt{5}}{2}, \frac{3-\sqrt{5}}{2}\right\}$ 3) $\left\{\frac{5+\sqrt{61}}{6}, \frac{5-\sqrt{61}}{6}\right\}$

4) $\left\{\frac{-1+\sqrt{65}}{4}, \frac{-1-\sqrt{65}}{4}\right\}$ 5) $\left\{\frac{3+\sqrt{17}}{4}, \frac{3-\sqrt{17}}{4}\right\}$ 6) $\left\{\frac{-3+\sqrt{33}}{6}, \frac{-3-\sqrt{33}}{6}\right\}$

7) $\{5, -1\}$ 8) $\{2, -3\}$ 9) $\left\{\frac{3+\sqrt{33}}{4}, \frac{3-\sqrt{33}}{4}\right\}$

10) $\left\{\frac{-1+\sqrt{13}}{6}, \frac{-1-\sqrt{13}}{6}\right\}$ 11) No solution. 12) $\{\sqrt{2}, -\sqrt{2}\}$

13) $\left\{\frac{\sqrt{10}}{2}, -\frac{\sqrt{10}}{2}\right\}$ 14) No solution. 15) $\left\{\frac{-1+\sqrt{5}}{2}, \frac{-1-\sqrt{5}}{2}\right\}$

16) $\left\{\frac{1+\sqrt{7}}{2}, \frac{1-\sqrt{7}}{2}\right\}$ 17) $\left\{\frac{1+\sqrt{11}}{2}, \frac{1-\sqrt{11}}{2}\right\}$ 18) $\left\{\frac{1+2\sqrt{7}}{3}, \frac{1-2\sqrt{7}}{3}\right\}$

19) $\{-1+\sqrt{11}, -1-\sqrt{11}\}$ 20) $\{1+\sqrt{5}, 1-\sqrt{5}\}$ 21) $\{2+\sqrt{10}, 2-\sqrt{10}\}$

22) $\{-2+\sqrt{3}, -2-\sqrt{3}\}$ 23) $\{1, -4\}$ 24) $\{2, -2\}$