Kuta Software - Infinite Algebra 1

Name_____

Date_____ Period____

Solve each equation <u>by factoring and using the quadratic formula.</u> If it can't be factored, then only use the quadratic formula.

1) $m^2 - 5m - 14 = 0$

2) $b^2 - 4b + 4 = 0$

3) $2m^2 + 2m - 12 = 0$

4) $2x^2 - 3x - 5 = 0$

5) $x^2 + 4x + 3 = 0$

6) $2x^2 + 3x - 20 = 0$

7) $4b^2 + 8b + 7 = 4$

8) $2m^2 - 7m - 13 = -10$

9) $2x^2 - 3x - 15 = 5$

10) $x^2 + 2x - 1 = 2$

11) $2k^2 + 9k = -7$

12) $5r^2 = 80$

13) $2x^2 - 36 = x$

14) $5x^2 + 9x = -4$

15) $k^2 - 31 - 2k = -6 - 3k^2 - 2k$

16) $9n^2 = 4 + 7n$

17) $8n^2 + 4n - 16 = -n^2$

18) $8n^2 + 7n - 15 = -7$

 Name_____

Using the Quadratic Formula

Date_____ Period____

Solve each equation with the quadratic formula.

1) $m^2 - 5m - 14 = 0$

$\{7, -2\}$

2) $b^2 - 4b + 4 = 0$

$\{2\}$

3) $2m^2 + 2m - 12 = 0$

$\{2, -3\}$

4) $2x^2 - 3x - 5 = 0$

$\left\{\frac{5}{2}, -1\right\}$

5) $x^2 + 4x + 3 = 0$

$\{-1, -3\}$

6) $2x^2 + 3x - 20 = 0$

$\left\{\frac{5}{2}, -4\right\}$

7) $4b^2 + 8b + 7 = 4$

$\left\{-\frac{1}{2}, -\frac{3}{2}\right\}$

8) $2m^2 - 7m - 13 = -10$

$\left\{\frac{7 + \sqrt{73}}{4}, \frac{7 - \sqrt{73}}{4}\right\}$

9) $2x^2 - 3x - 15 = 5$

$\left\{4, -\frac{5}{2}\right\}$

10) $x^2 + 2x - 1 = 2$

$\{1, -3\}$

11) $2k^2 + 9k = -7$

$\left\{-1, -\frac{7}{2}\right\}$

12) $5r^2 = 80$

$\{4, -4\}$

13) $2x^2 - 36 = x$

$\left\{\frac{9}{2}, -4\right\}$

14) $5x^2 + 9x = -4$

$\left\{-\frac{4}{5}, -1\right\}$

15) $k^2 - 31 - 2k = -6 - 3k^2 - 2k$

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

16) $9n^2 = 4 + 7n$

$\left\{\frac{7 + \sqrt{193}}{18}, \frac{7 - \sqrt{193}}{18}\right\}$

17) $8n^2 + 4n - 16 = -n^2$

$\left\{\frac{-2 + 2\sqrt{37}}{9}, \frac{-2 - 2\sqrt{37}}{9}\right\}$

18) $8n^2 + 7n - 15 = -7$

$\left\{\frac{-7 + \sqrt{305}}{16}, \frac{-7 - \sqrt{305}}{16}\right\}$