Name_____

Using the Quadratic Formula

Date_____ Period____

Solve each equation with the quadratic formula.

1) $v^2 + 2v - 8 = 0$

2) $k^2 + 5k - 6 = 0$

3) $2v^2 - 5v + 3 = 0$

4) $2a^2 - a - 13 = 2$

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

6) $b^2 - 4b - 14 = -2$

7) $8n^2 - 4n = 18$

8) $8a^2 + 6a = -5$

9) $10x^2 + 9 = x$

10) $n^2 = 9n - 20$

11) $3a^2 = 6a - 3$

12) $x^2 = -3x + 40$

13) $9x^2 - 11 = 6x$

14) $4a^2 - 8 = a$

15) $14m^2 + 1 = 6m^2 + 7m$

16) $4x^2 + 4x - 8 = 1$

Name_____

Using the Quadratic Formula

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Solve each equation with the quadratic formula.

1) $v^2 + 2v - 8 = 0$

$\{2, -4\}$

2) $k^2 + 5k - 6 = 0$

$\{1, -6\}$

3) $2v^2 - 5v + 3 = 0$

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

4) $2a^2 - a - 13 = 2$

$\left\{3, -\frac{5}{2}\right\}$

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

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

6) $b^2 - 4b - 14 = -2$

$\{6, -2\}$

7) $8n^2 - 4n = 18$

$\left\{\frac{1 + \sqrt{37}}{4}, \frac{1 - \sqrt{37}}{4}\right\}$

8) $8a^2 + 6a = -5$

$\left\{\frac{-3 + i\sqrt{31}}{8}, \frac{-3 - i\sqrt{31}}{8}\right\}$

9) $10x^2 + 9 = x$

$\left\{\frac{1 + i\sqrt{359}}{20}, \frac{1 - i\sqrt{359}}{20}\right\}$

10) $n^2 = 9n - 20$

$\{5, 4\}$

11) $3a^2 = 6a - 3$

$\{1\}$

12) $x^2 = -3x + 40$

$\{5, -8\}$

13) $9x^2 - 11 = 6x$

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

14) $4a^2 - 8 = a$

$\left\{\frac{1 + \sqrt{129}}{8}, \frac{1 - \sqrt{129}}{8}\right\}$

15) $14m^2 + 1 = 6m^2 + 7m$

$\left\{\frac{7 + \sqrt{17}}{16}, \frac{7 - \sqrt{17}}{16}\right\}$

16) $4x^2 + 4x - 8 = 1$

$\left\{\frac{-1 + \sqrt{10}}{2}, \frac{-1 - \sqrt{10}}{2}\right\}$