Quadratic formula Name_____

Date_____

Solve each equation with the quadratic formula.

1) $4x^2 - x - 14 = 0$

2) $12v^2 - 6v - 9 = 0$

3) $b^2 - 5 = 0$

4) $7x^2 + 12 = 0$

5) $x^2 - 100 = 0$

6) $4x^2 - 10x - 84 = 0$

7) $4r^2 - 64 = 0$

8) $11r^2 - 5r - 24 = 0$

9) $10r^2 - r - 26 = -4$

10) $-n^2 - 2n + 6 = 12$

11) $12x^2 + 10x + 13 = 10$

12) $5k^2 + 11k - 2 = -10$

13) $4x^2 + 2x + 1 = -9$

14) $4x^2 - 25 = -9$

15) $8m^2 + 15 = 9$

16) $p^2 - 7p - 36 = 8$

Answers to

1) $\left\{2, -\frac{7}{4}\right\}$

2) $\left\{\frac{1+\sqrt{13}}{4}, \frac{1-\sqrt{13}}{4}\right\}$

3) $\left\{\sqrt{5}, -\sqrt{5}\right\}$

4) $\left\{\frac{2i\sqrt{21}}{7}, -\frac{2i\sqrt{21}}{7}\right\}$

5) $\{10, -10\}$

6) $\left\{6, -\frac{7}{2}\right\}$

7) $\{4, -4\}$

8) $\left\{\frac{5+\sqrt{1081}}{22}, \frac{5-\sqrt{1081}}{22}\right\}$

9) $\left\{\frac{1+\sqrt{881}}{20}, \frac{1-\sqrt{881}}{20}\right\}$

10) $\left\{-1-i\sqrt{5}, -1+i\sqrt{5}\right\}$

11) $\left\{\frac{-5+i\sqrt{11}}{12}, \frac{-5-i\sqrt{11}}{12}\right\}$

12) $\left\{\frac{-11+i\sqrt{39}}{10}, \frac{-11-i\sqrt{39}}{10}\right\}$

13) $\left\{\frac{-1+i\sqrt{39}}{4}, \frac{-1-i\sqrt{39}}{4}\right\}$

14) $\{2, -2\}$

15) $\left\{\frac{i\sqrt{3}}{2}, -\frac{i\sqrt{3}}{2}\right\}$

16) $\{11, -4\}$