

Quad Formula

Date _____ Period _____

Solve each equation with the quadratic formula.

1) $4a^2 = 25$

2) $6x^2 = 30 + 3x$

3) $b^2 + 1 = 9b$

4) $4v^2 = 17 - 11v$

5) $8x^2 = 9$

6) $7n^2 = -1 + 5n$

7) $5p^2 - 11 = 12p$

8) $6n^2 = 11n + 9$

9) $9n^2 - 10n = 5$

10) $6n^2 = 4 + 7n$

11) $n^2 + 4n = -4$

12) $3x^2 = 8 - 7x$

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Solve each equation with the quadratic formula.

1) $4a^2 = 25$

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

2) $6x^2 = 30 + 3x$

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

3) $b^2 + 1 = 9b$

$$\left\{\frac{9 + \sqrt{77}}{2}, \frac{9 - \sqrt{77}}{2}\right\}$$

4) $4v^2 = 17 - 11v$

$$\left\{\frac{-11 + \sqrt{393}}{8}, \frac{-11 - \sqrt{393}}{8}\right\}$$

5) $8x^2 = 9$

$$\left\{\frac{3\sqrt{2}}{4}, -\frac{3\sqrt{2}}{4}\right\}$$

6) $7n^2 = -1 + 5n$

No solution.

7) $5p^2 - 11 = 12p$

$$\left\{\frac{6 + \sqrt{91}}{5}, \frac{6 - \sqrt{91}}{5}\right\}$$

8) $6n^2 = 11n + 9$

$$\left\{\frac{11 + \sqrt{337}}{12}, \frac{11 - \sqrt{337}}{12}\right\}$$

9) $9n^2 - 10n = 5$

$$\left\{\frac{5 + \sqrt{70}}{9}, \frac{5 - \sqrt{70}}{9}\right\}$$

10) $6n^2 = 4 + 7n$

$$\left\{\frac{7 + \sqrt{145}}{12}, \frac{7 - \sqrt{145}}{12}\right\}$$

11) $n^2 + 4n = -4$

$$\{-2\}$$

12) $3x^2 = 8 - 7x$

$$\left\{\frac{-7 + \sqrt{145}}{6}, \frac{-7 - \sqrt{145}}{6}\right\}$$