Algebra 2 Name_____ ID: 1

Quadratic Formula

Date_____ Period____

Solve each equation with the quadratic formula.

1) $-17 = -9x - x^2$

2) $-15 - 4x = -2x^2$

3) $8n^2 - 14 = 0$

4) $-10x = -9 + 4x^2$

5) $6 = -7x^2$

6) $-3x^2 + 7 = 0$

7) $3x^2 - 5x - 24 = -9$

8) $b^2 = -10 + 2b$

9) $-2x^2 - 16x + 5 = -8x^2 - 8x$

10) $-7m^2 - 5 = 8m - 8$

Solve each equation with the quadratic formula.

1) $-17 = -9x - x^2$

$\left\{\frac{-9 + \sqrt{149}}{2}, \frac{-9 - \sqrt{149}}{2}\right\}$

2) $-15 - 4x = -2x^2$

$\left\{\frac{2 + \sqrt{34}}{2}, \frac{2 - \sqrt{34}}{2}\right\}$

3) $8n^2 - 14 = 0$

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

4) $-10x = -9 + 4x^2$

$\left\{\frac{-5 - \sqrt{61}}{4}, \frac{-5 + \sqrt{61}}{4}\right\}$

5) $6 = -7x^2$

$\left\{\frac{i\sqrt{42}}{7}, -\frac{i\sqrt{42}}{7}\right\}$

6) $-3x^2 + 7 = 0$

$\left\{-\frac{\sqrt{21}}{3}, \frac{\sqrt{21}}{3}\right\}$

7) $3x^2 - 5x - 24 = -9$

$\left\{\frac{5 + \sqrt{205}}{6}, \frac{5 - \sqrt{205}}{6}\right\}$

8) $b^2 = -10 + 2b$

$\{1 + 3i, 1 - 3i\}$

9) $-2x^2 - 16x + 5 = -8x^2 - 8x$

$\left\{\frac{4 + i\sqrt{14}}{6}, \frac{4 - i\sqrt{14}}{6}\right\}$

10) $-7m^2 - 5 = 8m - 8$

$\left\{\frac{-4 - \sqrt{37}}{7}, \frac{-4 + \sqrt{37}}{7}\right\}$