Solving Quadratic Equations Name:

Solve each problem. Write your answer as a decimal rounded to 2 places.

1) $-8x^2 = -(-12x - 4)$

2) $3x^2 + 11x + 6$

3) $x(16x - 8) = 15$

4) $15x^2 + 21x + 6$

5) $x(8x + 22) = -12$

6) $x(-5x - 19) = 12$

7) $-6x^2 = -(9x + 15)$

8) $-10x^2 + 6x + 4$

9) $-6x^2 = -(-1x + 12)$

10) $5x^2 - 4x - 1$

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

1-10	90	80	70	60	50	40	30	20	10	0

Solving Quadratic Equations Name: **Answer Key**

Solve each problem. Write your answer as a decimal rounded to 2 places.

1) $-8x^2 = -(-12x - 4)$

$12 \pm \sqrt{-122 - 4(-8)(-4)}$

$\frac{12 \pm 4}{-16}$

$x_+ = \frac{1}{-1}$

$x_- = \frac{1}{-2}$

2) $3x^2 + 11x + 6$

$-11 \pm \sqrt{112 - 4(3)(6)}$

$\frac{-11 \pm 7}{6}$

$x_+ = \frac{-2}{3}$

$x_- = \frac{-3}{1}$

3) $x(16x - 8) = 15$

$8 \pm \sqrt{-82 - 4(16)(-15)}$

$\frac{8 \pm 32}{32}$

$x_+ = \frac{5}{4}$

$x_- = \frac{-3}{4}$

4) $15x^2 + 21x + 6$

$-21 \pm \sqrt{212 - 4(15)(6)}$

$\frac{-21 \pm 9}{30}$

$x_+ = \frac{-2}{5}$

$x_- = \frac{-1}{1}$

5) $x(8x + 22) = -12$

$-22 \pm \sqrt{222 - 4(8)(12)}$

$\frac{-22 \pm 10}{16}$

$x_+ = \frac{-3}{4}$

$x_- = \frac{-2}{1}$

6) $x(-5x - 19) = 12$

$19 \pm \sqrt{-192 - 4(-5)(-12)}$

$\frac{19 \pm 11}{-10}$

$x_+ = \frac{3}{-1}$

$x_- = \frac{4}{-5}$

7) $-6x^2 = -(9x + 15)$

$-9 \pm \sqrt{92 - 4(-6)(15)}$

$\frac{-9 \pm 21}{-12}$

$x_+ = \frac{1}{-1}$

$x_- = \frac{-5}{-2}$

8) $-10x^2 + 6x + 4$

$-6 \pm \sqrt{62 - 4(-10)(4)}$

$\frac{-6 \pm 14}{-20}$

$x_+ = \frac{2}{-5}$

$x_- = \frac{-1}{-1}$

9) $-6x^2 = -(-1x + 12)$

$1 \pm \sqrt{-12 - 4(-6)(12)}$

$\frac{1 \pm 17}{-12}$

$x_+ = \frac{3}{-2}$

$x_- = \frac{-4}{-3}$

10) $5x^2 - 4x - 1$

$4 \pm \sqrt{-42 - 4(5)(-1)}$

$\frac{4 \pm 6}{10}$

$x_+ = \frac{1}{1}$

$x_- = \frac{-1}{5}$

Answers

1. **-1.00 , -0.50**
2. **-0.67 , -3.00**
3. **1.25 , -0.75**
4. **-0.40 , -1.00**
5. **-0.75 , -2.00**
6. **-3.00 , -0.80**
7. **-1.00 , 2.50**
8. **-0.40 , 1.00**
9. **-1.50 , 1.33**
10. **1.00 , -0.20**

1-10	90	80	70	60	50	40	30	20	10	0