Solving Quadratic Equations Name:

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

1) $25x^2 = -(-10x - 8)$

2) $5x^2 = -(-8x + 3)$

3) $x(8x - 12) = -4$

4) $x(-4x - 6) = 2$

5) $20x^2 + 3x - 9$

6) $-10x^2 = -(11x - 3)$

7) $-15x^2 + 18x - 3$

8) $3x^2 + 5x - 2$

9) $10x^2 = -(16x - 8)$

10) $12x^2 = -(2x - 4)$

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) $25x^2 = -(-10x - 8)$

$10+-\sqrt{-102 - 4(25)(-8)}$

$\frac{10 \pm 30}{50}$

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

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

2) $5x^2 = -(-8x + 3)$

$8+-\sqrt{-82 - 4(5)(3)}$

$\frac{8 \pm 2}{10}$

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

$x_- = \frac{3}{5}$

3) $x(8x - 12) = -4$

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

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

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

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

4) $x(-4x - 6) = 2$

$6+-\sqrt{-62 - 4(-4)(-2)}$

$\frac{6 \pm 2}{-8}$

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

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

5) $20x^2 + 3x - 9$

$-3+-\sqrt{32 - 4(20)(-9)}$

$\frac{-3 \pm 27}{40}$

$x_+ = \frac{3}{5}$

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

6) $-10x^2 = -(11x - 3)$

$-11+-\sqrt{112 - 4(-10)(-3)}$

$\frac{-11 \pm 1}{-20}$

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

$x_- = \frac{-3}{-5}$

7) $-15x^2 + 18x - 3$

$-18+-\sqrt{182 - 4(-15)(-3)}$

$\frac{-18 \pm 12}{-30}$

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

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

8) $3x^2 + 5x - 2$

$-5+-\sqrt{52 - 4(3)(-2)}$

$\frac{-5 \pm 7}{6}$

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

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

9) $10x^2 = -(16x - 8)$

$-16+-\sqrt{162 - 4(10)(-8)}$

$\frac{-16 \pm 24}{20}$

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

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

10) $12x^2 = -(2x - 4)$

$-2+-\sqrt{22 - 4(12)(-4)}$

$\frac{-2 \pm 14}{24}$

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

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

Answers

1. **0.80 , -0.40**
2. **1.00 , 0.60**
3. **1.00 , 0.50**
4. **-1.00 , -0.50**
5. **0.60 , -0.75**
6. **0.50 , 0.60**
7. **0.20 , 1.00**
8. **0.33 , -2.00**
9. **0.40 , -2.00**
10. **0.50 , -0.67**

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