Solving Quadratic Equations Name:

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

1) $-8x^2 = -(18x - 10)$

2) $15x^2 = -(-30x + 15)$

3) $-5x^2 = -(10x + 15)$

4) $x(8x - 6) = 5$

5) $-8x^2 + 18x - 10$

6) $x(-15x + 3) = -12$

7) $x(4x + 11) = -6$

8) $x(-8x + 18) = -5$

9) $x(16x + 8) = 3$

10) $x(3x - 6) = 9$

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) $-8x^2 = -(18x - 10)$

$-18 \pm \sqrt{182 - 4(-8)(-10)}$

$\frac{-18 \pm 2}{-16}$

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

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

2) $15x^2 = -(-30x + 15)$

$30 \pm \sqrt{-302 - 4(15)(15)}$

$\frac{30 \pm 0}{30}$

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

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

3) $-5x^2 = -(10x + 15)$

$-10 \pm \sqrt{102 - 4(-5)(15)}$

$\frac{-10 \pm 20}{-10}$

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

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

4) $x(8x - 6) = 5$

$6 \pm \sqrt{-62 - 4(8)(-5)}$

$\frac{6 \pm 14}{16}$

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

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

5) $-8x^2 + 18x - 10$

$-18 \pm \sqrt{182 - 4(-8)(-10)}$

$\frac{-18 \pm 2}{-16}$

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

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

6) $x(-15x + 3) = -12$

$-3 \pm \sqrt{32 - 4(-15)(12)}$

$\frac{-3 \pm 27}{-30}$

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

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

7) $x(4x + 11) = -6$

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

$\frac{-11 \pm 5}{8}$

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

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

8) $x(-8x + 18) = -5$

$-18 \pm \sqrt{182 - 4(-8)(5)}$

$\frac{-18 \pm 22}{-16}$

$x_+ = \frac{1}{-4}$

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

9) $x(16x + 8) = 3$

$-8 \pm \sqrt{82 - 4(16)(-3)}$

$\frac{-8 \pm 16}{32}$

$x_+ = \frac{1}{4}$

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

10) $x(3x - 6) = 9$

$6 \pm \sqrt{-62 - 4(3)(-9)}$

$\frac{6 \pm 12}{6}$

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

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

Answers

1. **1.00 , 1.25**
2. **1.00 , 1.00**
3. **-1.00 , 3.00**
4. **1.25 , -0.50**
5. **1.00 , 1.25**
6. **-0.80 , 1.00**
7. **-0.75 , -2.00**
8. **-0.25 , 2.50**
9. **0.25 , -0.75**
10. **3.00 , -1.00**

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