



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

Answers

1) $x(-3x - 6) = 3$

2) $x(1x + 1) = 20$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

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

4) $x(15x + 12) = 3$

5) $x(4x - 17) = -15$

6) $x(-8x - 16) = 6$

7) $x(-3x + 9) = -12$

8) $x(-8x + 8) = -6$

9) $x(12x + 2) = 2$

10) $x(-12x - 20) = 8$



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

1) $x(-3x - 6) = 3$

$$\frac{6 \pm \sqrt{-62 - 4(-3)(-3)}}{2(-3)}$$

$$\frac{6 \pm 0}{-6}$$

$$x_+ = -1$$

$$x_- = -1$$

2) $x(1x + 1) = 20$

$$\frac{-1 \pm \sqrt{12 - 4(1)(-20)}}{2(1)}$$

$$\frac{-1 \pm 9}{2}$$

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

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

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

$$\frac{4 \pm \sqrt{-42 - 4(-8)(4)}}{2(-8)}$$

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

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

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

4) $x(15x + 12) = 3$

$$\frac{-12 \pm \sqrt{122 - 4(15)(-3)}}{2(15)}$$

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

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

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

5) $x(4x - 17) = -15$

$$\frac{17 \pm \sqrt{-172 - 4(4)(15)}}{2(4)}$$

$$\frac{17 \pm 7}{8}$$

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

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

6) $x(-8x - 16) = 6$

$$\frac{16 \pm \sqrt{-162 - 4(-8)(-6)}}{2(-8)}$$

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

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

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

7) $x(-3x + 9) = -12$

$$\frac{-9 \pm \sqrt{92 - 4(-3)(12)}}{2(-3)}$$

$$\frac{-9 \pm 15}{-6}$$

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

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

8) $x(-8x + 8) = -6$

$$\frac{-8 \pm \sqrt{82 - 4(-8)(6)}}{2(-8)}$$

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

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

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

9) $x(12x + 2) = 2$

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

$$\frac{-2 \pm 10}{24}$$

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

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

10) $x(-12x - 20) = 8$

$$\frac{20 \pm \sqrt{-202 - 4(-12)(-8)}}{2(-12)}$$

$$\frac{20 \pm 4}{-24}$$

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

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

Answers

1. **-1.00 , -1.00**

2. **4.00 , -5.00**

3. **-1.00 , 0.50**

4. **0.20 , -1.00**

5. **3.00 , 1.25**

6. **-1.50 , -0.50**

7. **-1.00 , 4.00**

8. **-0.50 , 1.50**

9. **0.33 , -0.50**

10. **-1.00 , -0.67**