



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

1)  $x(1x + 3) = 4$

2)  $x(-3x + 10) = -25$

3)  $x(5x - 30) = -25$

4)  $x(-5x - 29) = 20$

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

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

7)  $x(12x + 2) = 4$

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

9)  $x(16x - 36) = -20$

10)  $x(4x + 8) = 5$

Answers

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_



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

1)  $x(1x + 3) = 4$

$$\frac{-3 \pm \sqrt{32 - 4(1)(-4)}}{2}$$

$$\frac{-3 \pm 5}{2}$$

$$x_+ = 1$$

$$x_- = 1$$

2)  $x(-3x + 10) = -25$

$$\frac{-10 \pm \sqrt{102 - 4(-3)(25)}}{-6}$$

$$\frac{-10 \pm 20}{-6}$$

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

$$x_- = -1$$

3)  $x(5x - 30) = -25$

$$\frac{30 \pm \sqrt{-302 - 4(5)(25)}}{10}$$

$$\frac{30 \pm 20}{10}$$

$$x_+ = 1$$

$$x_- = 1$$

4)  $x(-5x - 29) = 20$

$$\frac{29 \pm \sqrt{-292 - 4(-5)(-20)}}{-10}$$

$$\frac{29 \pm 21}{-10}$$

$$x_+ = -1$$

$$x_- = -5$$

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

$$\frac{-17 \pm \sqrt{172 - 4(15)(-4)}}{30}$$

$$\frac{-17 \pm 23}{30}$$

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

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

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

$$\frac{4 \pm \sqrt{-42 - 4(8)(-12)}}{16}$$

$$\frac{4 \pm 20}{16}$$

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

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

7)  $x(12x + 2) = 4$

$$\frac{-2 \pm \sqrt{22 - 4(12)(-4)}}{24}$$

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

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

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

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

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

$$\frac{8 \pm 0}{-8}$$

$$x_+ = -1$$

$$x_- = -1$$

9)  $x(16x - 36) = -20$

$$\frac{36 \pm \sqrt{-362 - 4(16)(20)}}{32}$$

$$\frac{36 \pm 4}{32}$$

$$x_+ = 4$$

$$x_- = 1$$

10)  $x(4x + 8) = 5$

$$\frac{-8 \pm \sqrt{82 - 4(4)(-5)}}{8}$$

$$\frac{-8 \pm 12}{8}$$

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

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

**Answers**

1. **1.00 , -4.00**

2. **-1.67 , 5.00**

3. **5.00 , 1.00**

4. **-5.00 , -0.80**

5. **0.20 , -1.33**

6. **1.50 , -1.00**

7. **0.50 , -0.67**

8. **-1.00 , -1.00**

9. **1.25 , 1.00**

10. **0.50 , -2.50**