



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

Answers

1) $x(25x + 5) = 2$

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

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

3) $x(8x + 10) = 3$

4) $x(9x - 27) = -20$

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

6) $x(8x - 18) = -4$

7) $x(-3x - 11) = 10$

8) $x(3x + 13) = -12$

9) $x(-5x + 15) = 10$

10) $x(12x - 23) = -10$



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

1) $x(25x + 5) = 2$

$$\frac{-5 \pm \sqrt{52 - 4(25)(-2)}}{50}$$

$$\frac{-5 \pm 15}{50}$$

$$\frac{1}{5}$$

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

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

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

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

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

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

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

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

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

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

3) $x(8x + 10) = 3$

$$\frac{-10 \pm \sqrt{102 - 4(8)(-3)}}{16}$$

$$\frac{-10 \pm 14}{16}$$

$$\frac{1}{4}$$

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

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

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

4) $x(9x - 27) = -20$

$$\frac{27 \pm \sqrt{-272 - 4(9)(20)}}{18}$$

$$\frac{27 \pm 3}{18}$$

$$\frac{5}{3}$$

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

$$\frac{4}{3}$$

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

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

$$\frac{8 \pm \sqrt{-82 - 4(5)(-4)}}{10}$$

$$\frac{8 \pm 12}{10}$$

$$\frac{2}{5}$$

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

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

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

6) $x(8x - 18) = -4$

$$\frac{18 \pm \sqrt{-182 - 4(8)(4)}}{16}$$

$$\frac{18 \pm 14}{16}$$

$$\frac{2}{4}$$

$$x_+ = \frac{2}{4}$$

$$\frac{1}{4}$$

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

7) $x(-3x - 11) = 10$

$$\frac{11 \pm \sqrt{-112 - 4(-3)(-10)}}{11 \pm 1}$$

$$\frac{11 \pm 1}{-6}$$

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

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

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

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

8) $x(3x + 13) = -12$

$$\frac{-13 \pm \sqrt{132 - 4(3)(12)}}{6}$$

$$\frac{-13 \pm 5}{6}$$

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

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

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

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

9) $x(-5x + 15) = 10$

$$\frac{-15 \pm \sqrt{152 - 4(-5)(-10)}}{-15 \pm 5}$$

$$\frac{-15 \pm 5}{-10}$$

$$\frac{-1}{-1}$$

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

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

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

10) $x(12x - 23) = -10$

$$\frac{23 \pm \sqrt{-232 - 4(12)(10)}}{24}$$

$$\frac{23 \pm 7}{24}$$

$$\frac{5}{4}$$

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

$$\frac{2}{3}$$

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

Answers

1. **0.20 , -0.40**

2. **-0.50 , -1.50**

3. **0.25 , -1.50**

4. **1.67 , 1.33**

5. **2.00 , -0.40**

6. **2.00 , 0.25**

7. **-2.00 , -1.67**

8. **-1.33 , -3.00**

9. **1.00 , 2.00**

10. **1.25 , 0.67**