



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

Answers

1) $x(-3x + 7) = -6$

2) $x(-20x - 17) = 3$

3) $x(5x - 3) = 2$

4) $x(-6x + 7) = -5$

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

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

7) $x(8x - 24) = -10$

8) $x(12x + 11) = 5$

9) $x(15x + 2) = 8$

10) $x(15x + 8) = -1$

1. _____

2. _____

3. _____

4.

5.

6.

7. _____

8.

9.

10. _____



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

1) $x(-3x + 7) = -6$

$$\frac{-7 \pm \sqrt{72 - 4(-3)(6)}}{-6}$$

$$\frac{-7 \pm 11}{-6}$$

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

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

$$x_- = -1$$

2) $x(-20x - 17) = 3$

$$\frac{17 \pm \sqrt{-172 - 4(-20)(-3)}}{-40}$$

$$\frac{17 \pm 7}{-40}$$

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

$$x_+ = -\frac{5}{8}$$

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

3) $x(5x - 3) = 2$

$$\frac{3 \pm \sqrt{-32 - 4(5)(-2)}}{10}$$

$$\frac{3 \pm 7}{10}$$

$$\frac{1}{10}$$

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

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

4) $x(-6x + 7) = -5$

$$\frac{-7 \pm \sqrt{72 - 4(-6)(5)}}{-12}$$

$$\frac{-7 \pm 13}{-12}$$

$$\frac{1}{-12}$$

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

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

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

$$\frac{5 \pm \sqrt{-52 - 4(-6)(4)}}{-12}$$

$$\frac{5 \pm 11}{-12}$$

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

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

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

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

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

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

$$\frac{-1}{16}$$

$$x_+ = \frac{2}{8}$$

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

7) $x(8x - 24) = -10$

$$\frac{24 \pm \sqrt{-242 - 4(8)(10)}}{16}$$

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

$$\frac{5}{16}$$

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

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

8) $x(12x + 11) = 5$

$$\frac{-11 \pm \sqrt{112 - 4(12)(-5)}}{24}$$

$$\frac{-11 \pm 19}{24}$$

$$\frac{1}{24}$$

$$x_+ = \frac{3}{8}$$

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

9) $x(15x + 2) = 8$

$$\frac{-2 \pm \sqrt{22 - 4(15)(-8)}}{30}$$

$$\frac{-2 \pm 22}{30}$$

$$\frac{2}{30}$$

$$x_+ = \frac{3}{15}$$

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

10) $x(15x + 8) = -1$

$$\frac{-8 \pm \sqrt{82 - 4(15)(1)}}{30}$$

$$\frac{-8 \pm 2}{30}$$

$$\frac{-1}{30}$$

$$x_+ = \frac{5}{15}$$

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

Answers

1. **-0.67 , 3.00**

2. **-0.60 , -0.25**

3. **1.00 , -0.40**

4. **-0.50 , 1.67**

5. **-1.33 , 0.50**

6. **-0.50 , -1.50**

7. **2.50 , 0.50**

8. **0.33 , -1.25**

9. **0.67 , -0.80**

10. **-0.20 , -0.33**