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

1) x(3x + 13) = 10

2) x(6x + 12) = -6

3) x(-3x + 3) = -6

4) x(10x - 29) = -10

5) x(15x + 4) = 4

6) x(-4x + 20) = 25

7) x(-4x + 13) = 10

8) x(16x + 0) = 16

9) x(2x - 10) = -8

10) x(20x + 31) = -12

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

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

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

1) x(3x + 13) = 10

$-13+-\sqrt{132 - 4(3)(-10)}$

$\frac{-13 \pm 17}{6}$

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

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

2) x(6x + 12) = -6

$-12+-\sqrt{122 - 4(6)(6)}$

$\frac{-12 \pm 0}{12}$

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

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

3) x(-3x + 3) = -6

$-3+-\sqrt{32 - 4(-3)(6)}$

$\frac{-3 \pm 9}{-6}$

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

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

4) x(10x - 29) = -10

$29+-\sqrt{-292 - 4(10)(10)}$

$\frac{29 \pm 21}{20}$

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

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

5) x(15x + 4) = 4

$-4+-\sqrt{42 - 4(15)(-4)}$

$\frac{-4 \pm 16}{30}$

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

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

6) x(-4x + 20) = 25

$-20+-\sqrt{202 - 4(-4)(-25)}$

$\frac{-20 \pm 0}{-8}$

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

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

7) x(-4x + 13) = 10

$-13+-\sqrt{132 - 4(-4)(-10)}$

$\frac{-13 \pm 3}{-8}$

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

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

8) x(16x + 0) = 16

$-0+-\sqrt{2 - 4(16)(-16)}$

$\frac{0 \pm 32}{32}$

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

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

9) x(2x - 10) = -8

$10+-\sqrt{-102 - 4(2)(8)}$

$\frac{10 \pm 6}{4}$

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

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

10) x(20x + 31) = -12

$-31+-\sqrt{312 - 4(20)(12)}$

$\frac{-31 \pm 1}{40}$

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

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

Answers

1. **0.67 , -5.00**
2. **-1.00 , -1.00**
3. **-1.00 , 2.00**
4. **2.50 , 0.40**
5. **0.40 , -0.67**
6. **2.50 , 2.50**
7. **1.25 , 2.00**
8. **1.00 , -1.00**
9. **4.00 , 1.00**
10. **-0.75 , -0.80**

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