

**Exercises of Linear equations**


---

1) Solve the following equations:

a)  $4(3x + 1) = -2x - 10$

c)  $6(-x + 5) = -8(x - 9)$

e)  $8(7x - 1) + 4(5x + 3) = 4$

b)  $4(x - 1) = 8x - 4$

d)  $6(2x - 4) = 8(x - 4)$

f)  $3(5x + 11) = 4x + 11$

2) Solve the following equations:

a)  $5(5x - 1) = 3x + 7$

c)  $7(7x + 5) + 10(7x + 8) = -11$

e)  $6(7x + 8) = 10(x + 1)$

b)  $9(4x - 5) = 4(2x - 10)$

d)  $10(3x - 9) = 6x + 4$

f)  $6(-x - 10) - 7(6x - 6) = -11$

3) Solve the following equations:

a)  $2 - \frac{-7x - 6}{2} = \frac{7}{6} + \frac{4(4x - 3)}{9}$

c)  $\frac{11}{2} + \frac{3x - 3}{9} = \frac{3}{2} + \frac{2(3x - 2)}{3}$

e)  $3 + \frac{5x - 3}{3} = -\frac{4}{3} + 2x + 2$

b)  $\frac{16}{9} - \frac{8(4x - 2)}{9} = -\frac{14}{3} + \frac{-8x + 4}{2}$

d)  $5 - \frac{7(-7x + 2)}{6} = \frac{17}{3} + 8x + 4$

f)  $\frac{6}{7} + \frac{2(x + 3)}{7} = 2 + \frac{-8}{4}$

4) Solve the following equations:

a)  $-\frac{8}{3} - \frac{-2x - 1}{3} = \frac{8}{9} - \frac{5(-7x + 1)}{9}$

c)  $-\frac{5}{2} + \frac{-x + 5}{3} = -\frac{1}{8} + \frac{5x + 8}{6}$

e)  $\frac{13}{4} - \frac{6(5x + 3)}{5} = \frac{3}{4} + \frac{-3}{5}$

b)  $\frac{11}{8} - \frac{5(-7x - 2)}{4} = -\frac{9}{2} - \frac{-2x - 7}{4}$

d)  $1 + \frac{-1}{6} = 2 + \frac{-8x}{7}$

f)  $\frac{4}{5} + \frac{7(-3x + 5)}{5} = \frac{8}{3} + \frac{5(-5x + 3)}{6}$

**Exercises of Linear equations**


---

**Answers:**

- |    |                         |                         |                         |                        |
|----|-------------------------|-------------------------|-------------------------|------------------------|
| 1) | a) $x = -1$             | b) $x = 0$              | c) $x = 21$             | d) $x = -2$            |
|    | e) $x = 0$              | f) $x = -2$             |                         |                        |
| 2) | a) $x = \frac{6}{11}$   | b) $x = \frac{5}{28}$   | c) $x = \frac{-18}{17}$ | d) $x = \frac{47}{12}$ |
|    | e) $x = \frac{-19}{16}$ | f) $x = \frac{-7}{48}$  |                         |                        |
| 3) | a) $x = -3$             | b) $x = -14$            | c) $x = 3$              | d) $x = 42$            |
|    | e) $x = 4$              | f) $x = -6$             |                         |                        |
| 4) | a) $x = \frac{-24}{29}$ | b) $x = \frac{-53}{66}$ | c) $x = \frac{-7}{4}$   | d) $x = \frac{49}{48}$ |
|    | e) $x = \frac{-1}{12}$  | f) $x = 79$             |                         |                        |