

Ecuaciones de Primer Grado con una incógnita sin denominadores

- 1) $2x + 1 = 21$
- 2) $7 = x + 3$
- 3) $8x - 5x = x + 8$
- 4) $3x = 9x + 12$
- 5) $3x + 6 = 2x + 13$
- 6) $5x - 7 = 2 - 4x$
- 7) $5x - 8 + 2x = 7 + 4x - 9$
- 8) $3x + x + 4 = 2x + 30$
- 9) $4x + 7 - x = 5 + 2x$
- 10) $4 - 2x + 13 = 10 - 9x + 7$
- 11) $7x - 10 + x - 2 = 6x - 3 + 3x - 1$
- 12) $5x - 7 + 2x = 3x - 3 + 4x - 5 + x$
- 13) $(x - 5) - (4x + 7) = 6 + 3x$
- 14) $13 - (x + 5) = 4x - (6x - 5)$
- 15) $3(4x - 1) - 2(5x - 3) + 3x = -11 - 2x$
- 16) $7x - 2(5 - x) = 3 + 2x + 1$
- 17) $3(x - 2) - 5(2x - 1) + 2(3x + 4) + 10 = -x$
- 18) $5x - 3(2x - 1) = 1 - 4(x - 2)$
- 19) $3(4x - 1) - 2(5x - 3) = 11 - 2x + 16$
- 20) $5(2 - 2x) + 3(x - 6) = 16 - 4(6 + 2x) + x$
- 21) $(2x - 1) - (x - 7) = 2$
- 22) $3(3x - 2) - 7x - 1 = 6(2x - 7) - 15x$

Resolución de Ecuaciones sin denominadores

1) $2x + 1 = 21$

$2x = 21 - 1$

$2x = 20$

$x = \frac{20}{2}$

2

$x = 10$

2) $7 = x + 3$

$-x = 3 - 7$

$-x = -4$

$x = 4$

$x = 4$

3) $8x - 5x = x + 8$

$8x - 5x - x = 8$

$2x = 8$

$x = \frac{8}{2}$

2

$x = 4$

4) $3x = 9x + 12$

$3x - 9x = 12$

$-6x = 12$

$x = \frac{12}{-6}$

-6

$x = -2$

5) $3x + 6 = 2x + 13$

$3x - 2x = 13 - 6$

$x = 7$

$x = 7$

6) $5x - 7 = 2 - 4x$

$5x + 4x = 2 + 7$

$9x = 9$

$x = \frac{9}{9}$

9

$x = 1$

$$\begin{aligned}
 7) \quad & 5x - 8 + 2x = 7 + 4x - 9 \\
 & 5x + 2x - 4x = 7 - 9 + 8 \\
 & 3x = 6 \\
 & x = \frac{6}{3}
 \end{aligned}$$

$$x = 2$$

$$\begin{aligned}
 8) \quad & 3x + x + 4 = 2x + 30 \\
 & 3x + x - 2x = 30 - 4 \\
 & 2x = 26 \\
 & x = \frac{26}{2}
 \end{aligned}$$

$$x = 13$$

$$\begin{aligned}
 9) \quad & 4x + 7 - x = 5 + 2x \\
 & 4x - x - 2x = 5 - 7 \\
 & x = -2
 \end{aligned}$$

$$x = -2$$

$$\begin{aligned}
 10) \quad & 4 - 2x + 13 = 10 - 9x + 7 \\
 & -2x + 9x = 10 + 7 - 4 - 13 \\
 & 7x = 0 \\
 & x = \frac{0}{7}
 \end{aligned}$$

$$x = 0$$

$$\begin{aligned}
 11) \quad & 7x - 10 + x - 2 = 6x - 3 + 3x - 1 \\
 & 7x + x - 6x - 3x = -3 - 1 + 10 + 2 \\
 & -x = 8 \\
 & x = -8
 \end{aligned}$$

$$x = -8$$

$$\begin{aligned}
 12) \quad & 5x - 7 + 2x = 3x - 3 + 4x - 5 + x \\
 & 5x + 2x - 3x - 4x - x = -3 - 5 + 7 \\
 & -x = -1 \\
 & x = 1
 \end{aligned}$$

$$x = 1$$

$$13) \quad (x - 5) - (4x + 7) = 6 + 3x$$

$$x - 5 - 4x - 7 = 6 + 3x$$

$$x - 4x - 3x = 6 + 5 + 7$$

$$-6x = 18$$

$$x = \frac{18}{-6}$$

$$-6$$

$$x = -3$$

$$14) \quad 13 - (x + 5) = 4x - (6x - 5)$$

$$13 - x - 5 = 4x - 6x + 5$$

$$-x - 4x + 6x = 5 - 13 + 5$$

$$x = -3$$

$$x = -3$$

$$15) \quad 3(4x - 1) - 2(5x - 3) + 3x = -11 - 2x$$

$$12x - 3 - 10x + 6 + 3x = -11 - 2x$$

$$12x - 10x + 3x + 2x = -11 + 3 - 6$$

$$7x = -14$$

$$x = \frac{-14}{7}$$

$$7$$

$$x = -2$$

$$16) \quad 7x - 2(5 - x) = 3 + 2x + 8$$

$$7x - 10 + 2x = 3 + 2x + 8$$

$$7x + 2x - 2x = 3 + 8 + 10$$

$$7x = 21$$

$$x = \frac{21}{7}$$

$$7$$

$$x = 3$$

$$17) \quad 3(x - 2) - 5(2x - 1) + 2(3x + 4) + 10 = -x$$

$$3x - 6 - 10x + 5 + 6x + 8 + 10 = -x$$

$$3x - 10x + 6x + x = 6 - 5 - 8 - 10$$

$$0x = -17$$

$$x = \text{no tiene solución}$$

No tiene solución porque ningún n° multiplicado por 0 da -17

$$18) \quad 5x - 3(2x - 1) = 1 - 4(x - 2)$$

$$5x - 6x + 3 = 1 - 4x + 8$$

$$5x - 6x + 4x = 1 + 8 - 3$$

$$3x = 6$$

$$x = \frac{6}{3}$$

$$x = 2$$

$$19) \quad 3(4x - 1) - 2(5x - 3) = 11 - 2x + 16$$

$$12x - 3 - 10x + 6 = 11 - 2x + 16$$

$$12x - 10x + 2x = 11 + 16 + 3 - 6$$

$$4x = 24$$

$$x = \frac{24}{4}$$

$$x = 6$$

$$20) \quad 5(2 - 2x) + 3(x - 6) = 16 - 4(6 + 2x) + x$$

$$10 - 10x + 3x - 18 = 16 - 24 - 8x + x$$

$$-10x + 3x + 8x - x = 16 - 24 - 10 + 18$$

$$0x = 0$$

Es una identidad

Cualquier n° cumple la igualdad

$$21) \quad (2x - 1) - (x - 7) = 2$$

$$2x - 1 - x + 7 = 2$$

$$2x - x = 2 + 1 - 7$$

$$x = -4$$

$$x = -4$$

$$22) \quad 3(3x - 2) - 7x - 1 = 6(2x - 7) - 15x$$

$$9x - 6 - 7x - 1 = 12x - 42 - 15x$$

$$9x - 7x - 12x + 15x = -42 + 6 + 1$$

$$5x = -35$$

$$x = \frac{-35}{5}$$

$$x = -7$$