

Ecuaciones de primer grado con paréntesis

2. Ecuaciones con paréntesis

$$\begin{aligned}
 & -2x - (2x - 1) = -2(x + 3) - 1 \\
 & -2x - 2x + 1 = -2x - 6 - 1 \\
 & -2x - 2x + 2x = -6 - 1 - 1 \\
 \text{75)} \quad & -2x = -8 \\
 & x = \frac{-8}{-2} \\
 & x = 4
 \end{aligned}$$

$$\begin{aligned}
 & 5 - (4x + 6) = 3x + (7 - 4x) \\
 & 5 - 4x - 6 = 3x + 7 - 4x \\
 \text{88)} \quad & -4x - 3x + 4x = 7 - 5 + 6 \\
 & -3x = 8 \\
 & x = -\frac{8}{3}
 \end{aligned}$$

$$\begin{aligned}
 & 8 + 5(x - 3) = 9(x + 1) \\
 & 8 + 5x - 15 = 9x + 9 \\
 & 5x - 9x = 9 - 8 + 15 \\
 \text{76)} \quad & -4x = 16 \\
 & x = \frac{16}{-4} \\
 & x = -4
 \end{aligned}$$

$$\begin{aligned}
 & x - 7(2x + 1) = 2(6 - 5x) - 13 \\
 & x - 14x - 7 = 12 - 10x - 13 \\
 & x - 14x + 10x = 12 - 13 + 7 \\
 \text{89)} \quad & -3x = 6 \\
 & x = \frac{6}{-3} \\
 & x = -2
 \end{aligned}$$

$$\begin{aligned}
 & 2(x - 4) = 3(x - 6) + 2x \\
 & 2x - 8 = 3x - 18 + 2x \\
 & 2x - 3x - 2x = -18 + 8 \\
 \text{77)} \quad & -3x = -10 \\
 & x = \frac{-10}{-3} \\
 & x = \frac{10}{3}
 \end{aligned}$$

$$\begin{aligned}
 & 11 - 5(3x + 2) + 7x = 1 - 7x \\
 & 11 - 15x - 10 + 7x = 1 - 7x \\
 \text{90)} \quad & -15x + 7x + 7x = 1 - 11 + 10 \\
 & -x = 0 \\
 & x = 0
 \end{aligned}$$

$$\begin{aligned}
 & 4x + 7(2x - 1) = x + 163 \\
 & 4x + 7x - 7 = x + 163 \\
 & 4x + 7x - x = 163 + 7 \\
 \text{78)} \quad & 10x = 170 \\
 & x = \frac{170}{10} \\
 & x = 17
 \end{aligned}$$

$$\begin{aligned}
 & 13x - 6(x + 2) = 4(2x - 1) + 7 \\
 & 13x - 6x - 12 = 8x - 4 + 7 \\
 \text{91)} \quad & 13x - 6x - 8x = -4 + 7 + 12 \\
 & -x = 15 \\
 & x = -15
 \end{aligned}$$

$$14x + 3(8x - 3) - 295 = 0$$

$$14x + 24x - 9 - 295 = 0$$

$$14x + 24x = 9 + 295$$

$$79) \quad 38x = 304$$

$$x = \frac{304}{38}$$

$$x = 8$$

$$3x - 4(x - 2) = x - 10$$

$$3x - 4x + 8 = x - 10$$

$$3x - 4x - x = -10 - 8$$

$$80) \quad -2x = -18$$

$$x = \frac{-18}{-2}$$

$$x = 9$$

$$6(x + 1) - 4x = 5x - 9 - x$$

$$6x + 6 - 4x = 5x - 9 - x$$

$$6x - 4x - 5x + x = -9 - 6$$

$$81) \quad -2x = -15$$

$$x = \frac{-15}{-2}$$

$$x = \frac{15}{2}$$

$$18x - 13 = 8 - 4(3x - 1) + 2$$

$$18x - 13 = 8 - 12x + 4 + 2$$

$$18x + 12x = 8 + 4 + 2 + 13$$

$$82) \quad 30x = 27$$

$$x = \frac{27}{30}$$

$$x = \frac{9}{10}$$

$$3x + 1 = 3 - (2 - 3x) - (x - 1)$$

$$83) \quad 3x + 1 = 3 - 2 + 3x - x + 1$$

$$3x - 3x + x = 3 - 2 + 1 - 1$$

$$x = 1$$

$$3(2x + 5) - 2(4 + 4x) = 7 - x$$

$$6x + 15 - 8 - 8x = 7 - x$$

$$92) \quad 6x - 8x + x = 7 - 15 + 8$$

$$-x = 0$$

$$x = 0$$

$$4(x - 3) - 5(x + 2) = 7(3x - 1)$$

$$4x - 12 - 5x - 10 = 21x - 7$$

$$93) \quad 4x - 5x - 21x = -7 + 12 + 10$$

$$-22x = 15$$

$$x = -\frac{15}{22}$$

$$6x + 2(1 + x) = 3x - (8 - x) - 2$$

$$6x + 2 + 2x = 3x - 8 + x - 2$$

$$6x + 2x - 3x - x = -8 - 2 - 2$$

$$94) \quad 4x = -12$$

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

$$x = -3$$

$$3(x + 1) = 2(x + 3) - (2x + 1)$$

$$3x + 3 = 2x + 6 - 2x - 1$$

$$3x - 2x + 2x = 6 - 1 - 3$$

$$95) \quad 3x = 6$$

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

$$x = 2$$

$$-2(2x - 3) + 3(x - 1) = 2(x - x)$$

$$-4x + 6 + 3x - 3 = 2x - 2x$$

$$96) \quad -4x + 3x - 2x + 2x = -6 + 3$$

$$-x = -3$$

$$x = 3$$

$$2(2+2x)-(6-7x)=1-(1+4x)$$

$$4+4x-6+7x=1-1-4x$$

$$84) \quad 4x+7x+4x=1-1-4+6$$

$$15x=2$$

$$x=\frac{2}{15}$$

$$5x-(1-2x)=-(x-1)-4(1-x)$$

$$5x-1+2x=-x+1-4+4x$$

$$85) \quad 5x+2x+x-4x=1-4$$

$$4x=-3$$

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

$$-3+2(x+1)=3x+2-2(3+2x)$$

$$-3+2x+2=3x+2-6-4x$$

$$2x-3x+4x=2-6+3-2$$

$$86) \quad 3x=-3$$

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

$$x=-1$$

$$3x+5(2x+1)=8-3(4-5x)$$

$$3x+10x+5=8-12+15x$$

$$3x+10x-15x=8-12-5$$

$$87) \quad -2x=-9$$

$$x=\frac{-9}{-2}$$

$$x=\frac{9}{2}$$

$$4(x-3)-5(x+2)=-2(3x-1)$$

$$4x-12-5x-10=-6x+2$$

$$97) \quad 4x-5x+6x=2+12+10$$

$$5x=24$$

$$x=\frac{24}{5}$$

$$7(x+2)-5(x-3)=4(x-2)+1$$

$$7x+14-5x+15=4x-8+1$$

$$7x-5x-4x=-8+1-14-15$$

$$98) \quad -2x=-20$$

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

$$x=10$$

$$2(3x-7)+6=4x-3(2-2x)$$

$$6x-14+6=4x-6+6x$$

$$6x-4x-6x=-6+14-6$$

$$99) \quad -4x=2$$

$$x=\frac{2}{-4}$$

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

$$-(x+1)-2(x-2)=-x-3$$

$$-x-1-2x+4=-x+3$$

$$-x-2x+x=3+1-4$$

$$100) \quad -2x=0$$

$$x=\frac{0}{-2}$$

$$x=0$$