

## SOLUCIONES

$$-6x + 3x = 3(5x + 4) - 3$$

$$-6x + 3x = 15x + 12 - 3$$

$$33) \quad -6x + 3x - 15x = 12 - 3$$

$$-18x = 9$$

$$x = \frac{9}{-18} = -\frac{1}{2}$$

$$(x+8) + 5 + 2x = 2(x+15)$$

$$34) \quad x + 8 + 5 + 2x = 2x + 30$$

$$x + 2x - 2x = 30 - 8 - 5$$

$$x = 17$$

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

$$2x + 1 = 2x + 8 - 3x + 3$$

$$35) \quad 2x - 2x + 3x = 8 + 3 - 1$$

$$3x = 10$$

$$x = \frac{10}{3}$$

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

$$36) \quad 2x - 14 = 3x + 3 - 2x$$

$$2x - 3x + 2x = 3 + 14$$

$$x = 17$$

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

$$37) \quad 2x - 10 = 2x - 8 - x + 1$$

$$2x - 2x + x = -8 + 1 + 10$$

$$x = 3$$

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

$$2x - 8 + 5x = 3x - 9$$

$$38) \quad 2x + 5x - 3x = -9 + 8$$

$$4x = -1$$

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

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

$$3x - 9 - 2x + 10 = 3 - x - 1$$

$$39) \quad 3x - 2x + x = 3 - 1 + 9 - 10$$

$$2x = 1$$

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

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

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

$$40) \quad 2x + 2x + x = 5 + 1 + 2 - 2$$

$$5x = 6$$

$$x = \frac{6}{5}$$

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

$$41) \quad -2x + 2 + 4x + 4 = x - 1$$

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

$$x = -7$$

$$6 + 5(x-1) = 2x - (2+x)$$

$$6 + 5x - 5 = 2x - 2 - x$$

$$42) \quad 5x - 2x + x = -2 - 6 + 5$$

$$4x = -3$$

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

$$5(x-1) + 32 = 4x + 41$$

$$43) \quad 5x - 5 + 32 = 4x + 41$$

$$5x - 4x = 41 + 5 - 32$$

$$x = 14$$

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

$$3x - 21 = 5x - 5 - 4x$$

$$44) \quad 3x - 5x + 4x = -5 + 21$$

$$2x = 16$$

$$x = \frac{16}{2} = 8$$

$$-2x - 6 = 7(4x + 14)$$

$$-2x - 6 = 28x + 98$$

$$45) -2x - 28x = 98 + 6$$

$$-30x = 104$$

$$x = \frac{104}{-30} = -\frac{52}{15}$$

$$x + 3 = 11(2x - 15)$$

$$x + 3 = 22x - 165$$

$$46) x - 22x = -165 - 3$$

$$-21x = -168$$

$$x = \frac{-168}{-21} = 8$$

$$x + 2x + (2x - 15) = 85$$

$$x + 2x + 2x - 15 = 85$$

$$47) x + 2x + 2x = 85 - 15$$

$$5x = 100$$

$$x = \frac{100}{5} = 20$$

$$4x + 2(46 - x) = 136$$

$$4x + 92 - 2x = 136$$

$$48) 4x - 2x = 136 - 92$$

$$2x = 44$$

$$x = \frac{44}{2} = 22$$

$$10(13 - x) + 15(2 - x) = 4 + x$$

$$130 - 10x + 30 - 15x = 4 + x$$

$$49) -10x - 15x - x = 4 - 130 - 30$$

$$-26x = -156$$

$$x = \frac{-156}{-26} = 6$$

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

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

$$50) -x - x + x = 3 + 1 - 2 - 1$$

$$-x = 1$$

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

$$3(x - 1) - 2x = 5(x - 1) - 6x$$

$$3x - 3 - 2x = 5x - 5 - 6x$$

$$51) 3x - 2x - 5x + 6x = -5 + 3$$

$$2x = -2$$

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

$$3(x - 3) = 5(x - 1) - 6x$$

$$3x - 9 = 5x - 5 - 6x$$

$$52) 3x - 5x + 6x = -5 + 9$$

$$4x = 4$$

$$x = \frac{4}{4} = 1$$

$$3(5x + 9) - 3(x - 7) = 11(x - 2) + 7$$

$$53) 15x + 27 - 3x + 21 = 11x - 22 + 7$$

$$15x - 3x - 11x = -22 + 7 - 27 - 21$$

$$x = -63$$

$$5(x - 3) - x - 1 = 10 - (x + 1)$$

$$5x - 15 - x - 1 = 10 - x - 1$$

$$54) 5x - x + x = 10 - 1 + 15 + 1$$

$$5x = 25$$

$$x = \frac{25}{5} = 5$$

$$7x - 6 = x + 8 + 5(x + 1)$$

$$55) 7x - 6 = x + 8 + 5x + 5$$

$$7x - x - 5x = 8 + 5 + 6$$

$$x = 19$$

$$2(x + 3) - 6(5 + x) = 3x + 4$$

$$2x + 6 - 30 - 6x = 3x + 4$$

$$56) 2x - 6x - 3x = 4 - 6 + 30$$

$$-7x = 28$$

$$x = \frac{28}{-7} = -4$$

$$5(2-x)+3(x+6)=10-4(6+2x)$$

$$10-5x+3x+18=10-24-8x$$

$$57) -5x+3x+8x=10-24-10-18$$

$$6x=-42$$

$$x=\frac{-42}{6}=-7$$

$$3x+8-5x-5=2(x+6)-7x$$

$$3x+8-5x-5=2x+12-7x$$

$$58) 3x-5x-2x+7x=12-8+5$$

$$3x=9$$

$$x=\frac{9}{3}=3$$

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

$$4x-2+6x-24=3+2x$$

$$59) 4x+6x-2x=3+2+24$$

$$8x=29$$

$$x=\frac{29}{8}$$

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

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

$$60) 4x-5x+3x=5+8-1$$

$$2x=12$$

$$x=\frac{12}{2}=6$$

$$38+7(x-3)=9(x+1)$$

$$38+7x-21=9x+9$$

$$61) 7x-9x=9-38+21$$

$$-2x=-8$$

$$x=\frac{-8}{-2}=4$$

$$(x+28)+15=2(x+15)$$

$$x+28+15=2x+30$$

$$62) x-2x=30-28-15$$

$$-x=-13$$

$$x=\frac{-13}{-1}=13$$

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

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

$$63) -2x+x=1-1-2-2$$

$$-x=-4$$

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

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

$$-x-3=12+2x$$

$$64) -x-2x=12+3$$

$$-3x=15$$

$$x=\frac{15}{-3}=-5$$

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

$$2x+1=8-3x+9$$

$$65) 2x+3x=8+9-1$$

$$5x=16$$

$$x=\frac{16}{5}$$

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

$$2x-14=-3x+3+2x-2$$

$$66) 2x+3x-2x=3-2+14$$

$$3x=15$$

$$x=\frac{15}{3}=5$$

$$5x=8(5x-3)-4$$

$$5x=40x-24-4$$

$$67) 5x-40x=-24-4$$

$$-36x=-28$$

$$x=\frac{-28}{-36}=\frac{7}{9}$$

$$2(x-6)=3x-19$$

$$2x-12=3x-19$$

$$68) 2x-3x=-19+12$$

$$-x=-7$$

$$x=\frac{-7}{-1}=7$$

