

1º A

31/03/20

$$29) \frac{x+1}{2} + \frac{x+4}{5} - \frac{x+3}{4} = \frac{1}{2}$$

$$\text{m.c.m}(2, 5, 4) = 20$$

$$\frac{50(x+1)}{20} + \frac{4(x+4)}{20} - \frac{5(x+3)}{20} = \frac{20}{20} \quad \text{Simplificamos los denominadores}$$

$$\boxed{10(x+1)} + \boxed{4(x+4)} - \boxed{5(x+3)} = 20$$

$$10x + 10 + 4x + 16 - 5x - 15 = 20$$

$$10x + 4x - 5x = 20 - 10 - 16 + 15$$

$$\textcircled{9}x = 9$$

$$\left\{ \begin{array}{l} x = \frac{9}{9} \end{array} \right.$$

$$x = 1$$

$$30) \frac{x+1}{6} - \frac{x-4}{3} = 2 + \frac{1}{2}$$

$$\text{m.c.m}(6, 3, 2) = 6$$

$$\frac{x+1}{6} - \frac{2(x-4)}{6} = \frac{12}{6} + \frac{3}{6} \quad \text{Simplificamos los denominadores}$$

$$x+1 - 2(x-4) = 12 + 3$$

$$x+1 - 2x + 8 = 12 + 3$$

$$x - 2x = 12 + 3 - 1 - 8$$

$$\textcircled{-1}x = 6$$

$$\left\{ \begin{array}{l} x = \frac{6}{-1} \end{array} \right.$$

$$x = -6$$

Hacer 31 y 32.

$$31) \quad \frac{2x}{3} + \frac{5}{4} + \frac{x}{6} - 7 = 0$$

$$m.c.m(3,4,6) = 12$$

$$\frac{8x}{12} + \frac{15}{12} + \frac{2x}{12} - \frac{84}{12} = \frac{0}{12} \quad \text{Simplificamos los denominadores}$$

$$8x + 15 + 2x - 84 = 0$$

$$8x + 2x = -15 + 84$$

$$10x = 69$$

$$x = \frac{69}{10}$$

$$32) \quad \frac{x+1}{8} - \frac{x+1}{3} + \frac{x+3}{5} = 0$$

$$m.c.m(8,3,5) = 120 = 2^3 \cdot 3 \cdot 5$$

$$8 = 2^3$$

$$3 = 3$$

$$5 = 5$$

Comunes y no comunes  
de mayor exponente

$$\frac{15(x+1)}{120} - \frac{40(x+1)}{120} + \frac{24(x+3)}{120} = \frac{0}{120} \quad \text{Simplificamos los denominadores}$$

$$15(x+1) - 40(x+1) + 24(x+3) = 0$$

$$15x + 15 - 40x - 40 + 24x + 72 = 0$$

$$15x - 40x + 24x = -15 + 40 - 72$$

$$-1x = -47$$

$$x = \frac{-47}{-1}$$

$$x = 47$$

Hacer 33 y 34

$$33) \frac{2x+3}{4} - \frac{143}{6} = \frac{9x-5}{8} - 2x \quad | \quad 1$$

$$\text{m.c.m.}(4,6,8) = 24$$

$$\frac{6(2x+3)}{24} - \frac{572}{24} = \frac{3(9x-5)}{24} - \frac{48x}{24}$$

Simplificamos los denominadores

$$\boxed{6(2x+3)} - 572 = \boxed{3(9x-5)} - 48x$$

$$12x + 18 - 572 = 27x - 15 - 48x$$

$$12x - 27x + 48x = -15 - 18 + 572$$

$$\textcircled{33}x = 539$$

$$x = \frac{539}{33}$$

$$x = \frac{49}{3}$$

$$34) \frac{10x}{5} - \frac{95-10x}{2} = \frac{10x-55}{2}$$

$$\frac{20x}{2} - \frac{95-10x}{2} = \frac{10x-55}{2}$$

Simplificamos los denominadores

$$20x - (95-10x) = 10x-55$$

$$20x - 95 + 10x = 10x - 55$$

$$20x + 10x - 10x = -55 + 95$$

$$\textcircled{20}x = 40$$

$$x = \frac{40}{20}$$

$$x = 2$$

$$35) \frac{x+3}{2} - \frac{143}{3} = \frac{2x-5}{9} - x \quad | \quad 1$$

$$\text{m.c.m.}(2,3,9) = 18$$

$$\frac{9(x+3)}{18} - \frac{858}{18} = \frac{2(2x-5)}{18} - \frac{18x}{18} \quad \text{Simplificamos los denominadores}$$

$$9(x+3) - 858 = 2(2x-5) - 18x$$

$$9x + 27 - 858 = 4x - 10 - 18x$$

$$9x - 4x + 18x = -10 + 27 + 858$$

$$23x = 821$$

$$x = \frac{821}{23}$$

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No hay enteros

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