

EJERCICIO RESUELTO

$$\frac{x}{2} + \frac{x}{3} = \frac{2}{3}$$

$$6 \cdot \left(\frac{x}{2} + \frac{x}{3} \right) = 6 \cdot \frac{2}{3}$$

$$\frac{6x}{2} + \frac{6x}{3} = \frac{12}{3}$$

Multiplicamos los dos miembros por 6, que es el mínimo común múltiplo de los denominadores (2, 3, 3).

$$3x + 2x = 4 \longrightarrow 5x = 4 \longrightarrow x = \frac{4}{5}$$

10 $\frac{x}{2} - \frac{x}{5} = \frac{3}{2}$

12 $x - \frac{5}{3} = \frac{x}{6}$

14 $x - \frac{7}{2} = \frac{x}{8}$

16 $\frac{x}{2} - \frac{1}{5} = \frac{x}{3}$

18 $x - \frac{x}{2} = \frac{1}{5}$

11 $\frac{x}{3} + \frac{x}{6} = 1$

13 $\frac{x}{2} - \frac{x}{5} = \frac{3}{5}$

15 $\frac{x}{4} = \frac{1}{6} + \frac{x}{3}$

17 $\frac{x}{3} + \frac{1}{4} = \frac{x}{12}$

19 $x - \frac{1}{4} = \frac{3x}{2}$

$$\mathbf{20} \quad \frac{x}{4} - \frac{1}{5} = \frac{x}{2} + \frac{2}{5}$$

$$\mathbf{22} \quad x - \frac{1}{15} = \frac{10x}{3} - 2x$$

$$\mathbf{24} \quad \frac{x}{2} - \frac{4}{3} + \frac{x}{4} = 1 - \frac{x}{8}$$

$$\mathbf{26} \quad \frac{5x}{4} - \frac{3}{20} = x - \frac{x}{5}$$

$$\mathbf{28} \quad x - \frac{5x}{3} = \frac{x}{6} + \frac{1}{3}$$

$$\mathbf{21} \quad \frac{x}{5} - \frac{1}{10} = \frac{1}{2} - \frac{x}{5}$$

$$\mathbf{23} \quad \frac{x}{3} + \frac{x}{2} - 1 = 5 - \frac{x}{6}$$

$$\mathbf{25} \quad x - \frac{2x}{5} = \frac{3}{2} - \frac{3x}{10}$$

$$\mathbf{27} \quad \frac{2x}{7} + \frac{1}{3} = \frac{x}{2} - \frac{7}{6}$$

$$\mathbf{29} \quad \frac{x}{8} - \frac{2}{3} = \frac{7}{12} + \frac{3x}{4}$$

$$30 \quad \frac{5x}{6} - \frac{2x}{3} = x - 5$$

$$31 \quad \frac{3}{10} - \frac{x}{5} = \frac{4}{5} - \frac{x}{4}$$

$$32 \quad 3x - \frac{5x}{2} + \frac{3}{5} = \frac{3x}{5} - x$$

$$33 \quad \frac{3x}{2} - \frac{7}{20} = \frac{x}{5} + \frac{1}{6} - \frac{x}{4}$$

$$34 \quad \frac{x}{2} - \frac{x}{3} + 1 = \frac{x}{5} + \frac{11}{10}$$

$$35 \quad \frac{x}{4} - \frac{1}{6} - \frac{x}{2} = \frac{1}{3} - \frac{x}{6}$$

$$36 \quad \frac{x}{4} - \frac{5x}{8} = \frac{x}{2} + \frac{1}{4} + x$$

$$37 \quad \frac{x}{3} - \frac{1}{2} + \frac{x}{6} = \frac{2x}{9} - \frac{2}{3}$$

$$38 \quad \frac{x}{6} - \frac{2}{15} + \frac{x}{10} = \frac{x}{15} - \frac{1}{3}$$

$$39 \quad \frac{x}{8} - \frac{x}{6} + \frac{1}{12} = \frac{5x}{12} - \frac{3}{8}$$

RECUERDA

$$x - \frac{2}{3}\left(x - \frac{1}{4}\right) = \frac{1}{2} - x$$

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

$$6 \cdot \left(x - \frac{2x}{3} + \frac{1}{6}\right) = 6 \cdot \left(\frac{1}{2} - x\right)$$

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

$$8x = 2$$

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

PARA RESOLVER UNA ECUACIÓN

Eliminamos paréntesis.

Eliminamos denominadores
(en este caso multiplicamos ambos
miembros por mín.c.m. (3, 6, 2) = 6).Reduciendo y transponiendo términos,
despejamos la incógnita.

40 $3x - 5\left(\frac{x}{2} - 1\right) = 6$

42 $\frac{x}{2} + \frac{x}{3} = 2\left(\frac{1}{3} + \frac{x}{6}\right) - \frac{1}{2}$

44 $1 + 3\left(\frac{x}{2} - 1\right) = 2(x - 1) + \frac{1}{3} - x$

46 $1 + \frac{3}{5}\left(x - \frac{5}{3}\right) = 2x - \frac{1}{5}$

41 $1 - \frac{2x}{3} = x - 3\left(\frac{x}{5} - \frac{1}{3}\right)$

43 $4x - 2(x + 7) - \frac{3}{2} = 2 - \frac{x}{2}$

45 $x - \frac{1}{3}(x - 2) = \frac{1}{5}\left(x - \frac{4}{3}\right)$

47 $3 - 2\left(\frac{x}{2} + \frac{x}{3}\right) = 2x - \frac{3}{2}$