

03/04/20

1°A

36) $3(2x - \frac{1}{2}) + 2(x+3) = 7$

1° Parentesis

$6x - \frac{3}{2} + 2x + 6 = 7$

Reduciendo a común denominador

Sin reducir a común denominador

$\frac{12x}{2} - \frac{3}{2} + \frac{4x}{2} + \frac{12}{2} = \frac{14}{2}$

$6x + 2x = 7 + \frac{3}{2} - 6$

$12x - 3 + 4x + 12 = 14$

$8x = \frac{5}{2}$

$12x + 4x = 14 + 3 - 12$

$x = \frac{\frac{5}{2}}{8}$

$16x = 5$

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

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

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

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

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

Simplificamos los denominadores

$3x + 2 = x + 12$

$3x - x = 12 - 2$

$2x = 10$

$x = \frac{10}{2}$

$x = 5$

Hacer 38 y 39

38) $\frac{x+12}{6} = \frac{x+13}{12}$

m.c.m(6,12) = 12

$$\frac{2(x+12)}{12} = \frac{x+13}{12}$$

Simplificamos los denominadores

$$2(x+12) = x+13$$

$$2x + 24 = x + 13$$

$$2x - x = 13 - 24$$

$$x = -11$$

$$39) \frac{2x-5}{3} = \frac{3}{4}$$

$$\text{m.c.m}(3,4) = 12$$

$$\frac{4(2x-5)}{12} = \frac{9}{12}$$

Reducimos a común denominador

$$4(2x-5) = 9$$

Simplificamos los denominadores

$$8x - 20 = 9$$

$$8x = 9 + 20$$

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

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

Hacer 40 y 41

$$40) \frac{3x}{2} + 20 = \frac{x}{3} + 25$$

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

$$\frac{9x}{6} + \frac{120}{6} = \frac{2x}{6} + \frac{150}{6}$$

Simplificamos los denominadores

$$9x + 120 = 2x + 150$$

$$9x - 2x = 150 - 120$$

$$\textcircled{7}x = 30$$

$$x = \frac{30}{7}$$

$$41) \frac{3-x}{6} - \frac{x}{2} = \frac{1-x}{5} + \frac{2-x}{3}$$

$$\text{m.c.m}(6, 2, 5, 3) = 30$$

$$\frac{5(3-x)}{30} - \frac{15x}{30} = \frac{6(1-x)}{30} + \frac{10(2-x)}{30}$$

Simplificamos los denominadores

$$5(3-x) - 15x = 6(1-x) + 10(2-x)$$

$$15 - 5x - 15x = 6 - 6x + 20 - 10x$$

$$-5x - 15x + 6x + 10x = 6 + 20 - 15$$

$$-4x = 11$$

$$x = \frac{11}{-4}$$

Hacer 42

$$42) x_{\frac{1}{2}} - \frac{3}{2} = 2x_{\frac{1}{3}} - \frac{7}{3}$$

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

$$\frac{6x}{6} - \frac{9}{6} = \frac{12x}{6} - \frac{14}{6}$$

Simplificamos los denominadores

$$6x - 9 = 12x - 14$$

$$6x - 12x = -14 + 9$$

$$-6x = -5$$

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

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