

m. 313 p. 533 $\frac{z}{3x+7} + \frac{5x+2}{x-1} = \frac{5+3x}{x} + \frac{6x+2}{3(x-1)}$ calculăm c.m.m. fra și veri denumitorii

$$\frac{z \cdot 3x \cdot (x-1) + (5x+2)(3x+7) \cdot 3x}{(3x+7) \cdot (x-1) \cdot 3x} = \frac{(5+3x) \cdot 3 \cdot (3x+7)(x-1) + (6x+2) \cdot x \cdot (3x+7)}{(3x+7) \cdot (x-1) \cdot 3x}$$

C.E.: $x \neq 0 \vee x \neq 1 \vee x \neq -\frac{7}{3}$

$$6x^2 - 6x + 45x^3 + 18x^2 + 42x + 105x^2 = (15+9x) \cdot (3x^2 - 3x + 7x - 7) + 18x^3 + 6x^2 + 42x^2 + 14x$$

$$6x^2 - 6x + 45x^3 + 18x^2 + 42x + 105x^2 = 45x^2 + 27x^3 - 45x - 27x^2 + 105x + 63x^2 - 105 - 63x + 18x^3 + 6x^2 + 42x + 14x$$

$$x^3 \underbrace{(45 - 27 - 18)}_0 + x^2 \underbrace{(6 + 18 + 105 - 45 + 27 - 63 - 6 - 42)}_0 + x \underbrace{(-6 + 42 + 45 - 105 + 63 - 14)}_{25} = -105$$

$$25x = -105 \quad x = -\frac{105}{25} = -\frac{21}{5}$$