Vežbanje ZA kontrolni

(132.) b) $(x-3)^2 - \frac{(6x-2)(x-1)}{6} = 4 \quad | \cdot 6$

$6 \cdot (x-3)^2 - \frac{6}{1} \cdot \frac{(6x-2)(x-1)}{6} = 6 \cdot 4$

$6 \cdot (x^2 - 6x + 3^2) - (6x-2)(x-1) = 24$

$6x^2 - 36x + 54 - (6x^2 - 6x - 2x + 2) = 24$

$6x^2 - 36x + 54 - 6x^2 + 6x + 2x - 2 = 24$

$-28x + 52 = 24$

$-28x = 24 - 52$

$-28x = -28 \quad / :(-28)$

$x = (-28) : (-28)$

$\boxed{x = 1}$

kod nejednačina:

$>, <, \circ, (,)$

$\geq, \leq, \bullet, [,]$

(157.) $\frac{11-x}{12-x} \neq \frac{12}{11}$

$11 \cdot (11-x) = 12 \cdot (12-x)$

$121 - 11x = 144 - 12$

$-11x + 12x = 144 - 121$

$x = 23$

(145.) $\frac{x}{2} + \frac{x}{3} - 5 = x \quad / \cdot 6$

$\frac{6^3}{1} \cdot \frac{x}{2_1} + \frac{6^2}{1} \cdot \frac{x}{3_1} - 6 \cdot 5 = 6 \cdot x$

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

$5x - 30 = 6x$

$5x - 6x = 30$

$-x = 30$

$x = 30$

(210.) b)

(210) b) $\frac{x+1}{5} - \frac{x-3}{3} \leq \frac{2x-2}{5} - \frac{3-x}{2} \quad | \cdot 30$

$\frac{6}{\cancel{30}} \cdot \frac{x+1}{\cancel{5}_1} - \frac{10}{\cancel{30}} \cdot \frac{x-3}{\cancel{3}_1} \leq \frac{\cancel{30}^{6}}{1} \cdot \frac{2x-2}{\cancel{5}_1} - \frac{\cancel{30}^{15}}{1} \cdot \frac{3-x}{\cancel{2}}$

$6 \cdot (x+1) - 10 \cdot (x-3) \leq 6 \cdot (2x-2) - 15 \cdot (3-x)$

$6x + 6 - 10x + 30 \leq 12x - 12x - 12 - 45 + 15x$

$-4x + 36 \leq 27x - 57$

$-4x - 27x \leq -36 - 57$

$-31x \leq -93 \quad | : (-31)$

$x \geq 3$

$x \in [3, +\infty)$