

## Линеарне једначине

$$118. \text{ а) } 8 \cdot (2x - (3x + 2)) + 18 = 7x - (3x - 5 \cdot (2x - 4))$$

$$8 \cdot (2x - 3x - 2) + 18 = 7x - (3x - 10x + 20)$$

$$8 \cdot (-x - 2) + 18 = 7x - (-7x + 20)$$

$$-8x - 16 + 18 = 7x + 7x - 20$$

$$-8x + 2 = 14x - 20$$

$$-8x - 14x = -20 - 2$$

$$-22x = -22$$

$$x = (-22) : (-22)$$

$$x = 1$$

$$(a+b)^2 = a^2 + 2 \cdot a \cdot b + b^2$$

$$(a-b)^2 = a^2 - 2 \cdot a \cdot b + b^2$$

$$2 + 20 = 14x + 8x$$

$$22 = 22x$$

$$x = 22 : 22$$

$$x = 1$$

$$120. \text{ б) } (3-5x)^2 + (1+12x)^2 = (13x-2)^2 + 6$$

$$3^2 - 2 \cdot 3 \cdot 5x + (5x)^2 + 1^2 + 2 \cdot 1 \cdot 12x + (12x)^2 = (13x)^2 - 2 \cdot 13x \cdot 2 + 2^2 + 6$$

$$9 - 30x + 25x^2 + 1 + 24x + 144x^2 = 169x^2 - 52x + 4 + 6$$

$$\cancel{10} - \cancel{6x} + \cancel{169x^2} = \cancel{169x^2} - 52x + \cancel{10}$$

$$-6x = -52x$$

$$-6x + 52x = 0$$

$$46x = 0$$

$$x = 0$$

ПРОВЕРА:

$$(3-5 \cdot 0)^2 + (1+12 \cdot 0)^2 = (13 \cdot 0 - 2)^2 + 6$$

$$3^2 + 1^2 = (-2)^2 + 6$$

$$9 + 1 = 4 + 6$$

$$10 = 10 \quad \checkmark$$



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$$124. a) x - \frac{2x-5}{5} = 4 \quad / \cdot 5$$

$$5 \cdot x - 5 \cdot \frac{2x-5}{5} = 5 \cdot 4$$

$$5x - \frac{5}{1} \cdot \frac{2x-5}{5} = 20$$

$$5x - (2x-5) = 20$$

$$5x - 2x + 5 = 20$$

$$3x + 5 = 20$$

$$3x = 20 - 5$$

$$3x = 15$$

$$x = 15 : 3$$

$$x = 5$$

$$b) \frac{2x}{3} - \frac{x-3}{6} - 0,5 = x \quad / \cdot 6$$

$$\frac{2}{6} \cdot \frac{2x}{3} - \frac{1}{6} \cdot \frac{x-3}{6} - 6 \cdot 0,5 = 6 \cdot x$$

$$4x - (x-3) - 3 = 6x$$

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

$$3x = 6x$$

$$3x - 6x = 0$$

$$-3x = 0$$

$$x = 0$$

Зона: 124 (b, c)