

- 1)  $\frac{4+x}{8} = 2 - \frac{3-4x}{5};$
- 2)  $x - \frac{2-x}{3} = 1 + \frac{x}{2};$
- 3)  $2 - 3x + \frac{1-2x}{5} = 1 - \frac{7x-5}{2};$
- 4)  $2x - 6 - \frac{16-x}{3} = \frac{x+3}{2};$
- 5)  $\frac{3-2x}{3} - \frac{x+1}{2} = 1 - \frac{5x-1}{6};$
- 6)  $x - \frac{2x+3}{5} - \frac{1}{2} = 1 + \frac{x-1}{10};$
- 7)  $\frac{1}{3} \left( \frac{x}{2} - \frac{1}{4} \right) - \frac{1}{6} = \frac{1}{9} \left( \frac{x}{8} + \frac{1}{2} \right);$
- 8)  $1 - \frac{1}{4} \left( \frac{x}{2} - \frac{1}{6} \right) = \frac{1}{8} \left( 2 + \frac{2}{3}x \right);$
- 9)  $\frac{1}{3} \left( \frac{x}{2} - \frac{2}{3} \right) - \frac{1}{2} \left( 1 - \frac{x+6}{6} \right) = \frac{1}{36}.$

1)

$$\begin{aligned} \frac{4+x}{8} &= 2 - \frac{3-4x}{5} \\ 20+5x &= 80 - 24 + 32x \\ -27x &= 36 \\ x &= -\frac{4}{3}; \end{aligned}$$

2)

$$\begin{aligned} x - \frac{2-x}{3} &= 1 + \frac{x}{2} \\ 6x - 4 + 2x &= 6 + 3x \\ 5x &= 10 \\ x &= 2; \end{aligned}$$

3)

$$\begin{aligned} 2 - 3x + \frac{1-2x}{5} &= 1 - \frac{7x-5}{2} \\ 20 - 30x + 2 - 4x &= 10 - 35x + 25 \\ x &= 13; \end{aligned}$$

4)

$$\begin{aligned} 2x - 6 - \frac{16-x}{3} &= \frac{x+3}{2} \\ 12x - 36 - 32 + 2x &= 3x + 9 \\ 11x &= 77 \\ x &= 7; \end{aligned}$$

5)

$$\begin{aligned} \frac{3-2x}{3} - \frac{x+1}{2} &= 1 - \frac{5x-1}{6} \\ 6 - 4x - 3x - 3 &= 6 - 5x + 1 \\ -2x &= 4 \end{aligned}$$

$$x = -2;$$

6)

$$\begin{aligned} x - \frac{2x+3}{5} - \frac{1}{2} &= 1 + \frac{x-1}{10} \\ 10x - 4x - 6 - 5 &= 10 + x - 1 \\ 5x &= 20 \\ x &= 4; \end{aligned}$$

7)

$$\begin{aligned} \frac{1}{3} \left( \frac{x}{2} - \frac{1}{4} \right) - \frac{1}{6} &= \frac{1}{9} \left( \frac{x}{8} + \frac{1}{2} \right) \\ 1 + \frac{x}{6} - \frac{1}{12} &= \frac{x}{72} + \frac{1}{18} \\ 72 + 12x - 6 &= x + 4 \\ 11x &= -62 \\ x &= -\frac{62}{11}; \end{aligned}$$

8)

$$\begin{aligned} 1 - \frac{1}{4} \left( \frac{x}{2} - \frac{1}{6} \right) &= \frac{1}{8} \left( 2 + \frac{2}{3}x \right) \\ 1 - \frac{x}{8} + \frac{1}{24} &= \frac{1}{4} + \frac{x}{12} \\ 24 - 3x + 1 &= 6 + 2x \\ -5x &= -19 \\ x &= \frac{19}{5}; \end{aligned}$$

9)

$$\begin{aligned} \frac{1}{3} \left( \frac{x}{2} - \frac{2}{3} \right) - \frac{1}{2} \left( 1 - \frac{x+6}{6} \right) &= \frac{1}{36} \\ \frac{x}{6} - \frac{2}{9} - \frac{1}{2} + \frac{x+6}{12} &= \frac{1}{36} \\ 6x - 8 - 18 + 3x + 18 &= 1 \\ 9x &= 9 \\ x &= 1. \end{aligned}$$

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**2.6. Zadatak 4.**