Zadatak 49. Odredi brojeve x i y ako je $x^{-1} + y^{-1} = 5$ i $x^{-1} \cdot y^{-1} = 6$.

Rješenje.

$$x^{-1} + y^{-1} = 5$$

$$x^{-1} \cdot y^{-1} = 6 \implies \frac{1}{x} = 6y$$

$$6y + \frac{1}{y} = 5$$

$$6y^2 - 5y + 1 = 0$$

$$y_{1,2} = \frac{5 \pm \sqrt{25 - 24}}{12}$$

$$y_1 = \frac{1}{2}, \quad y_2 = \frac{1}{3}$$

$$x_1 = \frac{1}{6y_1} = \frac{1}{3}, \quad x_2 = \frac{1}{6y_2} = \frac{1}{2}.$$

To su brojevi $\dfrac{1}{2}$ i $\dfrac{1}{3}$.