

Zadanie 31

x - wartości licznika

y - wartości mianownika

$\frac{x}{y}$ - szukany ułamek

$$\begin{cases} \frac{x + \frac{1}{2}x}{y + \frac{1}{2}x} = \frac{4}{7} \\ \frac{x+1}{y+1} = \frac{1}{2} \end{cases}$$

$$\begin{cases} 1,5x \cdot 7 = 4y + 2x \\ 2x + 2 = y + 1 \end{cases}$$

$$8,5x = 4y$$

$$2x + 1 = y$$

$$8,5x = 4(2x + 1)$$

$$2x + 1 = y$$

$$8,5x = 8x + 4$$

$$y = 2x + 1$$

$$\frac{1}{2}x = 4 \quad | \cdot 2$$

$$y = 2x + 1$$

$$x = 8$$

$$y = 17$$

$$\frac{x}{y} = \frac{8}{17}$$

Odp. Szukany ułamek to $\frac{8}{17}$.

Spr.

$$\frac{8+4}{17+4} = \frac{4}{7}$$

$$\frac{12}{21} = \frac{4}{7}$$

$$L = P$$

$$\frac{8+1}{17+1} = \frac{1}{2}$$

$$\frac{9}{18} = \frac{1}{2}$$

$$L = P$$