

Brojevi zapisani četvorkom bitova

– zadaci za ponavljanje gradiva

1. zadatak. Izračunaj koji dekadski broj se krije iza sljedećih binarnih brojeva:

a) 0001 b) 1001 c) 1000 d) 0101 e) 1010.

(Na dnu stranice potraži točna rješenja zadataka.)

Rješenje.

1. zadatak.

$$\text{a) } \begin{matrix} 8 & 4 & 2 & 1 \\ \mathbf{0001} \end{matrix} \text{ }_{(2)} = \mathbf{0} \cdot 8 + \mathbf{0} \cdot 4 + \mathbf{0} \cdot 2 + \mathbf{1} \cdot 1 = 0 + 0 + 0 + 1 = \mathbf{1} \text{ }_{(10)}$$

$$\text{b) } \begin{matrix} 8 & 4 & 2 & 1 \\ \mathbf{1001} \end{matrix} \text{ }_{(2)} = \mathbf{1} \cdot 8 + \mathbf{0} \cdot 4 + \mathbf{0} \cdot 2 + \mathbf{1} \cdot 1 = 8 + 0 + 0 + 1 = \mathbf{9} \text{ }_{(10)}$$

$$\text{c) } \begin{matrix} 8 & 4 & 2 & 1 \\ \mathbf{1000} \end{matrix} \text{ }_{(2)} = \mathbf{1} \cdot 8 + \mathbf{0} \cdot 4 + \mathbf{0} \cdot 2 + \mathbf{0} \cdot 1 = 8 + 0 + 0 + 0 = \mathbf{8} \text{ }_{(10)}$$

$$\text{d) } \begin{matrix} 8 & 4 & 2 & 1 \\ \mathbf{0101} \end{matrix} \text{ }_{(2)} = \mathbf{0} \cdot 8 + \mathbf{1} \cdot 4 + \mathbf{0} \cdot 2 + \mathbf{1} \cdot 1 = 0 + 4 + 0 + 1 = \mathbf{5} \text{ }_{(10)}$$

$$\text{e) } \begin{matrix} 8 & 4 & 2 & 1 \\ \mathbf{1010} \end{matrix} \text{ }_{(2)} = \mathbf{1} \cdot 8 + \mathbf{0} \cdot 4 + \mathbf{1} \cdot 2 + \mathbf{0} \cdot 1 = 8 + 0 + 2 + 0 = \mathbf{10} \text{ }_{(10)}$$