

Zadatak 25. Izračunaj: $\lfloor\sqrt{1}\rfloor + \lfloor\sqrt{2}\rfloor + \lfloor\sqrt{3}\rfloor + \dots + \lfloor\sqrt{49}\rfloor + \lfloor\sqrt{50}\rfloor$?

Rješenje. $\lfloor\sqrt{1}\rfloor, \lfloor\sqrt{2}\rfloor, \lfloor\sqrt{3}\rfloor = 1.$

$$\lfloor\sqrt{4}\rfloor, \dots, \lfloor\sqrt{8}\rfloor = 2.$$

$$\lfloor\sqrt{9}\rfloor, \dots, \lfloor\sqrt{15}\rfloor = 3.$$

$$\lfloor\sqrt{16}\rfloor, \dots, \lfloor\sqrt{24}\rfloor = 4.$$

$$\lfloor\sqrt{25}\rfloor, \dots, \lfloor\sqrt{35}\rfloor = 5.$$

$$\lfloor\sqrt{36}\rfloor, \dots, \lfloor\sqrt{48}\rfloor = 6.$$

$$\lfloor\sqrt{49}\rfloor, \lfloor\sqrt{50}\rfloor = 7.$$

Sada je:

$$\begin{aligned} & \lfloor\sqrt{1}\rfloor + \lfloor\sqrt{2}\rfloor + \lfloor\sqrt{3}\rfloor + \dots + \lfloor\sqrt{49}\rfloor + \lfloor\sqrt{50}\rfloor \\ &= 3 \cdot 1 + 5 \cdot 2 + 7 \cdot 3 + 9 \cdot 4 + 11 \cdot 5 + 13 \cdot 6 + 2 \cdot 7 = 217. \end{aligned}$$