

**Zadatak 12.** Brojeve  $\sqrt{9 + 4\sqrt{5}}$  i  $\sqrt{17 - 4\sqrt{9 + 4\sqrt{5}}}$  prikaži u obliku  $x + \sqrt{y}$ .

*Rješenje.*

$$\begin{aligned}\sqrt{9 + 4\sqrt{5}} &= \sqrt{4 + 4\sqrt{5} + 5} = \sqrt{(2 + \sqrt{5})^2} = 2 + \sqrt{5}; \\ \sqrt{17 - 4\sqrt{9 + 4\sqrt{5}}} &= \sqrt{17 - 4\sqrt{(2 + \sqrt{5})^2}} = \sqrt{17 - 8 - 4\sqrt{5}} \\ &= \sqrt{9 - 4\sqrt{5}} = \sqrt{5 - 4\sqrt{5} + 4} = \sqrt{(\sqrt{5} - 2)^2} = \sqrt{5} - 2.\end{aligned}$$