

## Rješenja zadataka 7.3

**Zadatak 1.** Pojednostavni:

$$1) \vec{AB} - \vec{BC} - \vec{CD} - \vec{DA};$$

$$2) (\vec{AB} - \vec{BC}) - (\vec{CD} + \vec{AD}) + (\vec{CB} - \vec{CD}).$$

*Rješenje.*

$$1) \vec{AB} - \vec{BC} - \vec{CD} - \vec{DA} = \vec{AB} + \vec{CB} + \vec{DC} + \vec{AD} = \vec{AB} + \vec{CB} + \vec{AD} + \vec{DC} = \vec{AB} + \vec{CB} + \vec{AC} = \vec{AB} + \vec{AC} + \vec{CB} = \vec{AB} + \vec{AB} = 2\vec{AB};$$

$$2) (\vec{AB} - \vec{BC}) - (\vec{CD} + \vec{AD}) + (\vec{CB} - \vec{CD}) = \vec{AB} - \vec{BC} - \vec{CD} - \vec{AD} + \vec{CB} - \vec{CD} = \vec{AB} + \vec{CB} + \vec{DC} + \vec{DA} + \vec{CB} + \vec{DC} = \vec{DA} + \vec{AB} + 2(\vec{DC} + \vec{CB}) = \vec{DB} + 2\vec{DB} = 3\vec{DB}.$$