**Zadatak 4.** Stranica $\overline{BC}$ trokuta $ABC$ točkama $P$ i $Q$ podijeljena je na tri jednaka dijela. Izrazi vektore $\overrightarrow{AP}$ i $\overrightarrow{AQ}$ kao linearnu kombinaciju vektora $\overrightarrow{AB} = \vec{c}$ i $\overrightarrow{AC} = \vec{b}$.

***Rješenje.***

$\overrightarrow{BC} = \vec{b} - \vec{c}$,

$\overrightarrow{AP} = \vec{c} + \overrightarrow{BP} = \vec{c} + \frac{1}{3}\overrightarrow{BC} = \vec{c} + \frac{1}{3}(\vec{b} - \vec{c}) = \frac{1}{3}\vec{b} + \frac{2}{3}\vec{c}$,

$\overrightarrow{AQ} = \vec{c} + \overrightarrow{BQ} = \vec{c} + \frac{2}{3}\overrightarrow{BC} = \vec{c} + \frac{2}{3}(\vec{b} - \vec{c}) = \frac{2}{3}\vec{b} + \frac{1}{3}\vec{c}$.