

Έχουμε

$$\begin{aligned}\overrightarrow{\Delta\epsilon} &= \overrightarrow{\Delta\alpha} + \overrightarrow{\alpha\epsilon} = -\overrightarrow{\alpha\Delta} + \overrightarrow{\alpha\epsilon} = -(\kappa\overrightarrow{AB} + \lambda\overrightarrow{AG}) + \lambda\overrightarrow{AB} + \kappa\overrightarrow{AG} = -\kappa\overrightarrow{AB} - \lambda\overrightarrow{AG} + \lambda\overrightarrow{AB} + \kappa\overrightarrow{AG} = \\ &= -\kappa\overrightarrow{AB} + \lambda\overrightarrow{AB} - \lambda\overrightarrow{AG} + \kappa\overrightarrow{AG} = \overrightarrow{AB}(-\kappa + \lambda) + \overrightarrow{AG}(-\lambda + \kappa) = (\lambda - \kappa)\overrightarrow{AB} - (\lambda - \kappa)\overrightarrow{AG} = \\ &= (\lambda - \kappa)(\overrightarrow{AB} - \overrightarrow{AG}) = (\lambda - \kappa)\overrightarrow{GB} = (\kappa - \lambda)\overrightarrow{BG}\end{aligned}$$

Οπότε

$$\overrightarrow{\Delta\epsilon} = (\kappa - \lambda)\overrightarrow{BG} \Rightarrow \overrightarrow{\Delta\epsilon} // \overrightarrow{BG}$$