

Έχουμε

$$\left. \begin{aligned} \overrightarrow{AB} &= \overrightarrow{AM} + \overrightarrow{MN} + \overrightarrow{NB} \\ \overrightarrow{AD} &= \overrightarrow{AM} + \overrightarrow{MN} + \overrightarrow{ND} \\ \overrightarrow{GB} &= \overrightarrow{GM} + \overrightarrow{MN} + \overrightarrow{NB} \\ \overrightarrow{GD} &= \overrightarrow{GM} + \overrightarrow{MN} + \overrightarrow{ND} \end{aligned} \right\} \begin{array}{l} \text{προσθέτουμε κατά μέλη} \\ \Rightarrow \end{array}$$

$$\Rightarrow \overrightarrow{AB} + \overrightarrow{AD} + \overrightarrow{GB} + \overrightarrow{GD} = 2\overrightarrow{AM} + 2\overrightarrow{GM} + 4\overrightarrow{MN} + 2\overrightarrow{NB} + 2\overrightarrow{ND} \Rightarrow$$

$$\Rightarrow \overrightarrow{AB} + \overrightarrow{AD} + \overrightarrow{GB} + \overrightarrow{GD} = 2(\overrightarrow{AM} + \overrightarrow{GM}) + 4\overrightarrow{MN} + 2(\overrightarrow{NB} + \overrightarrow{ND}) \xrightarrow[\overrightarrow{NB} + \overrightarrow{ND} = \vec{0}]{\overrightarrow{AM} + \overrightarrow{GM} = \vec{0}} \overrightarrow{AB} + \overrightarrow{AD} + \overrightarrow{GB} + \overrightarrow{GD} = 4\overrightarrow{MN}$$

