10.5) $A\hat{B}\Gamma$, $A'\hat{B}'\Gamma'$

5-2-2026

$(AB\Gamma) = \frac{1}{2} a \cdot U_a$, $(A'B'\Gamma') = \frac{1}{2} a' \cdot U'_a$

$$\frac{(AB\Gamma)}{(A'B'\Gamma')} = \frac{\frac{1}{2} a U_a}{\frac{1}{2} a' U'_a} = \frac{a U_a}{a' U'_a}$$

① Αν $a = a'$, $\frac{(AB\Gamma)}{(A'B'\Gamma')} = \frac{U_a}{U'_a}$

② Αν $U_a = U'_a$, $\frac{(AB\Gamma)}{(A'B'\Gamma')} = \frac{a}{a'}$

Θεώρημα Ι

Αν $A\hat{B}\Gamma \sim A'\hat{B}'\Gamma'$, τότε $\frac{(AB\Gamma)}{(A'B'\Gamma')} = \lambda^2$

Απόδ.

Έστω $\hat{A} = \hat{A}'$, $\hat{B} = \hat{B}'$

$$\lambda = \frac{a}{a'} = \frac{U_a}{U'_a}$$

$$\frac{(AB\Gamma)}{(A'B'\Gamma')} = \frac{\frac{1}{2} a U_a}{\frac{1}{2} a' U'_a} = \frac{a U_a}{a' U'_a} = \frac{a}{a'} \cdot \frac{U_a}{U'_a} = \lambda \cdot \lambda = \lambda^2$$

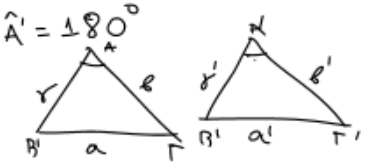
Θεώρημα ΙΙ

Όμοια Πολύγωνα $\frac{E}{E'} = \lambda^2$

Θεώρημα ΙΙΙ

$A\hat{B}\Gamma$, $A'\hat{B}'\Gamma'$

$\hat{A} = \hat{A}'$ ή $\hat{A} + \hat{A}' = 180^\circ$



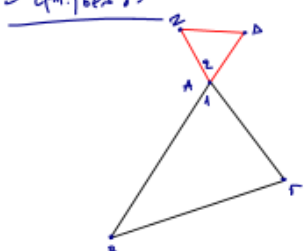
$$\frac{(AB\Gamma)}{(A'B'\Gamma')} = \frac{\beta \cdot \gamma}{\beta' \cdot \gamma'}$$

$(AB\Gamma) = \frac{\text{Απόδ.}}{\frac{1}{2} \beta\gamma \eta\mu\hat{A}}$, $(A'B'\Gamma') = \frac{1}{2} \beta'\gamma' \eta\mu\hat{A}'$

$\left.\begin{array}{l} \hat{A} = \hat{A}' \\ \hat{A} + \hat{A}' = 180^\circ \end{array}\right\} \eta\mu\hat{A} = \eta\mu\hat{A}'$

Άρα $\frac{(AB\Gamma)}{(A'B'\Gamma')} = \frac{\frac{1}{2}\beta\gamma\eta\mu\hat{A}}{\frac{1}{2}\beta'\gamma'\eta\mu\hat{A}'} = \frac{\beta\gamma}{\beta'\gamma'}$

3 εφ. | 662 83



$A\Delta = \frac{2}{3} AB$, $AZ = \frac{1}{2} A\Gamma$

$(AB\Gamma) = 30\ \text{m}^2$, $(AZ\Delta) = ;$

$\hat{A}_1 = \hat{A}_2$ (ως κατακορυφήν)

$$\frac{(AB\Gamma)}{(AZ\Delta)} = \frac{AB \cdot A\Gamma}{A\Delta \cdot AZ} \Leftrightarrow \frac{30}{(AZ\Delta)} = \frac{AB \cdot A\Gamma}{\frac{2}{3} AB \cdot \frac{1}{2} A\Gamma} \Leftrightarrow$$

$$\Leftrightarrow \frac{30}{(AZ\Delta)} = 3 \Leftrightarrow (AZ\Delta) = 10\ \text{m}^2$$