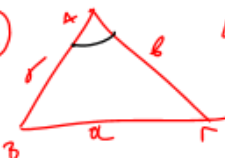


①  $E = \sqrt{z(z-a)(z-b)(z-c)}$ (Τίμος του Ηρώνα)
 $z = \frac{a+b+c}{2}$

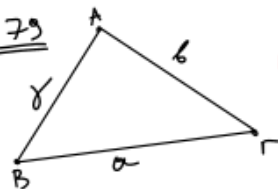
② $E = z \cdot \rho$, ρ - ακτίνα εγγ. κύκλου



③ $E = \frac{a \cdot b \cdot c}{4R}$, R - ακτίνα του περιγ.

④ $E = \frac{1}{2} bc \cdot \mu \hat{A} = \frac{1}{2} ac \cdot \mu \hat{B} = \frac{1}{2} ab \cdot \mu \hat{C}$

Εξ. 1) αλ. 79



$\frac{a}{\mu \hat{A}} = \frac{b}{\mu \hat{B}} = \frac{c}{\mu \hat{C}} = 2R$
 (R - ακτίνα του περιγ. κύκλου)
 Νόμος Ημιτόνων.

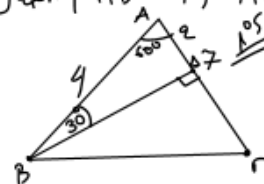
Αντ.

$E = \frac{1}{2} bc \cdot \mu \hat{A}$
 $E = \frac{a \cdot b \cdot c}{4R}$

$\frac{1}{2} bc \cdot \mu \hat{A} = \frac{a \cdot b \cdot c}{4R} \Leftrightarrow$
 $\mu \hat{A} = \frac{a}{2R} \Leftrightarrow \frac{a}{\mu \hat{A}} = 2R$

Ομοίως $\frac{b}{\mu \hat{B}} = 2R, \frac{c}{\mu \hat{C}} = 2R$

3) αλ. 79) αλ. | $AB=4, AC=7, \hat{A}=60^\circ, (AB \Gamma)=;$



$(AB \Gamma) = \frac{1}{2} AB \cdot AC \cdot \mu \hat{A} =$
 $= \frac{1}{2} \cdot 4 \cdot 7 \cdot \mu 60^\circ =$

$= 14 \cdot \frac{\sqrt{3}}{2} = 7\sqrt{3}$ τ.μ.

2ος

$\hat{A} \hat{B} \hat{D} = 30^\circ, AD = 2$ μ.

$BD = \sqrt{4^2 - 2^2} = \sqrt{16 - 4} = \sqrt{12} = 2\sqrt{3}$ μ.

$(AB \Gamma) = \frac{1}{2} 7 \cdot 2\sqrt{3} = 7\sqrt{3}$ τ.μ.