

17.16

$$\begin{aligned}\alpha' \text{ μέλος} &= x^2 + y^2 = (\alpha \eta \mu \omega + \beta \sigma \upsilon \nu \omega)^2 + (\alpha \sigma \upsilon \nu \omega - \beta \eta \mu \omega)^2 = \\ &= \alpha^2 \eta \mu^2 \omega + 2\alpha\beta \cdot \eta \mu \omega \cdot \sigma \upsilon \nu \omega + \beta^2 \sigma \upsilon \nu^2 \omega + \alpha^2 \sigma \upsilon \nu^2 \omega - 2\alpha\beta \cdot \eta \mu \omega \cdot \sigma \upsilon \nu \omega + \beta^2 \eta \mu^2 \omega = \\ &= \alpha^2 \eta \mu^2 \omega + \alpha^2 \sigma \upsilon \nu^2 \omega + \beta^2 \sigma \upsilon \nu^2 \omega + \beta^2 \eta \mu^2 \omega = \\ &= \alpha^2 (\eta \mu^2 \omega + \sigma \upsilon \nu^2 \omega) + \beta^2 (\sigma \upsilon \nu^2 \omega + \eta \mu^2 \omega) = \\ &= \alpha^2 + \beta^2 = \\ &= \beta' \text{ μέλος}\end{aligned}$$