

13.7 1)

$$\alpha) \quad \alpha' \text{ μέλος} = \varepsilon\varphi^2\omega \cdot \sigma\upsilon\nu^2\omega + \sigma\varphi^2\omega \cdot \eta\mu^2\omega = \frac{\eta\mu^2\omega}{\cancel{\sigma\upsilon\nu^2\omega}} \cdot \cancel{\sigma\upsilon\nu^2\omega} + \frac{\sigma\upsilon\nu^2\omega}{\cancel{\eta\mu^2\omega}} \cdot \cancel{\eta\mu^2\omega} = 1 = \beta' \text{ μέλος}$$

$$\begin{aligned} \beta) \quad \alpha' \text{ μέλος} &= 1 + \frac{1}{\sigma\varphi^2\omega} = 1 + \frac{1}{\frac{\sigma\upsilon\nu^2\omega}{\eta\mu^2\omega}} = 1 + \frac{1}{\frac{\sigma\upsilon\nu^2\omega}{\eta\mu^2\omega}} = 1 + \frac{\eta\mu^2\omega}{\sigma\upsilon\nu^2\omega} = \frac{\sigma\upsilon\nu^2\omega}{\sigma\upsilon\nu^2\omega} + \frac{\eta\mu^2\omega}{\sigma\upsilon\nu^2\omega} = \\ &= \frac{\sigma\upsilon\nu^2\omega + \eta\mu^2\omega}{\sigma\upsilon\nu^2\omega} = \frac{1}{\sigma\upsilon\nu^2\omega} = \\ &= \beta' \text{ μέλος} \end{aligned}$$

13.7 2)

$$\begin{aligned} \alpha' \text{ μέλος} &= 1 - \sigma\upsilon\nu^2\omega - \varepsilon\varphi^2\omega\sigma\upsilon\nu^2\omega = \eta\mu^2\omega - \varepsilon\varphi^2\omega\sigma\upsilon\nu^2\omega = \\ &= \eta\mu^2\omega - \frac{\eta\mu^2\omega}{\sigma\upsilon\nu^2\omega} \cdot \sigma\upsilon\nu^2\omega = \eta\mu^2\omega - \eta\mu^2\omega = 0 = \\ &= \beta' \text{ μέλος} \end{aligned}$$

13.7 3)

$$\begin{aligned} \alpha' \text{ μέλος} &= \frac{1}{\sigma\upsilon\nu^2\omega} + \frac{1}{\eta\mu^2\omega} = \frac{\eta\mu^2\omega}{\eta\mu^2\omega\sigma\upsilon\nu^2\omega} + \frac{\sigma\upsilon\nu^2\omega}{\eta\mu^2\omega\sigma\upsilon\nu^2\omega} = \\ &= \frac{\eta\mu^2\omega + \sigma\upsilon\nu^2\omega}{\eta\mu^2\omega\sigma\upsilon\nu^2\omega} = \frac{1}{\eta\mu^2\omega\sigma\upsilon\nu^2\omega} = \\ &= \beta' \text{ μέλος} \end{aligned}$$

13.7 4)

$$\begin{aligned} \alpha' \text{ μέλος} &= \frac{\eta\mu\omega}{\sigma\upsilon\nu\omega} + \frac{\sigma\upsilon\nu\omega}{\eta\mu\omega} = \frac{\eta\mu\omega \cdot \eta\mu\omega}{\sigma\upsilon\nu\omega \cdot \eta\mu\omega} + \frac{\sigma\upsilon\nu\omega \cdot \sigma\upsilon\nu\omega}{\sigma\upsilon\nu\omega \cdot \eta\mu\omega} = \\ &= \frac{\eta\mu^2\omega + \sigma\upsilon\nu^2\omega}{\eta\mu\omega \cdot \sigma\upsilon\nu\omega} = \frac{1}{\eta\mu\omega \cdot \sigma\upsilon\nu\omega} = \\ &= \beta' \text{ μέλος} \end{aligned}$$

13.7 5)

$$\begin{aligned} \alpha' \text{ μέλος} &= 1 + \varepsilon\varphi^2\omega = 1 + \frac{\eta\mu^2\omega}{\sigma\upsilon\nu^2\omega} = \frac{\sigma\upsilon\nu^2\omega}{\sigma\upsilon\nu^2\omega} + \frac{\eta\mu^2\omega}{\sigma\upsilon\nu^2\omega} = \\ &= \frac{\eta\mu^2\omega + \sigma\upsilon\nu^2\omega}{\sigma\upsilon\nu^2\omega} = \frac{1}{\sigma\upsilon\nu^2\omega} = \\ &= \beta' \text{ μέλος} \end{aligned}$$

13.7 6)

$$\alpha' \text{ μέλος} = 1 + \varepsilon\varphi^2\omega = 1 + \frac{1}{\frac{\eta\mu^2\omega}{\sigma\upsilon\nu^2\omega}} = 1 + \frac{\sigma\upsilon\nu^2\omega}{\eta\mu^2\omega} =$$

$$= \frac{\eta\mu^2\omega}{\eta\mu^2\omega} + \frac{\sigma\nu^2\omega}{\eta\mu^2\omega} = \frac{\eta\mu^2\omega + \sigma\nu^2\omega}{\eta\mu^2\omega} = \frac{1}{\eta\mu^2\omega} =$$

$$= \beta' \text{ μέλος}$$