Problema 5 | A Todo Gausssss

Primer veiem ~~cos~~ $4\cos^3\theta = \cos(3\theta) + 3\cos(\theta)$

$$4\cos^3(\theta) = 4\cdot\left(\frac{e^{i\theta}+e^{-i\theta}}{2}\right)^3 = \frac{1}{2}\left(e^{i3\theta} + 3e^{i2\theta}e^{-i\theta} + 3e^{i\theta}e^{-i2\theta} + 3e^{-i3\theta}\right)$$

$$= \frac{1}{2}\left[e^{i3\theta} + e^{-i3\theta} + 3\left(e^{i\theta}+e^{-i\theta}\right)\right] =$$

$$= \cos(3\theta) + 3\cos(\theta)$$

$$\text{Llavors } \boxed{\mu(\theta) = \frac{\cos(3\theta) + 3\cos(\theta) - \cos(3\theta)}{\cos\theta} =}$$

$$= \frac{3\cos\theta}{\cos\theta} = \boxed{3}$$