

Ha

$$2 \cos \alpha = u + \frac{1}{u},$$

akkor bizonyítsuk be, hogy

$$2 \cos 2\alpha = u^2 + \frac{1}{u^2}, \quad 2 \cos 3\alpha = u^3 + \frac{1}{u^3}, \dots \quad 2 \cos n\alpha = u^n + \frac{1}{u^n}.$$