Cuarto punto

2. a) $\cos(3\alpha) = \cos^3(\alpha) - 3\cos(\alpha)\operatorname{sen}^2(\alpha)$

b) $\operatorname{sen}(3\alpha) = 3\cos^2\operatorname{sen}(\alpha) - \operatorname{sen}^3(\alpha)$

$\cos(3\alpha) + i\operatorname{sen}(3\alpha) = [\cos\alpha + i\operatorname{sen}\alpha]^3$

$\cos^3\alpha + 3\cos^2\alpha\, i\operatorname{sen}\alpha + 3\cos\alpha\, i^2\operatorname{sen}^2\alpha + i^3\operatorname{sen}^3\alpha$

$\cos^3\alpha + 3\cos^2\alpha\, i\operatorname{sen}\alpha - 3\cos\alpha\operatorname{sen}^2\alpha - i\operatorname{sen}^3\alpha$

$\cos^3\alpha - 3\cos\alpha\operatorname{sen}^2\alpha + i[3\cos^2\alpha\operatorname{sen}\alpha - \operatorname{sen}^3\alpha]$

$\cos(3\alpha) = \cos^3\alpha - 3\cos\alpha\operatorname{sen}^2\alpha$

$i\operatorname{sen}(3\alpha) = i[3\cos^2\alpha\operatorname{sen}\alpha - \operatorname{sen}^3\alpha]$