P. 34 es. 83 $\qquad$ $sen^2\alpha + cos^2\alpha = 1$ $\qquad$ $sen^2\alpha = 1 - cos^2\alpha$

$cos^2\alpha - 2sen^2\alpha = cos^2\alpha - 2(1 - cos^2\alpha) =$

$= cos^2\alpha - 2 + 2cos^2\alpha = 3cos^2\alpha - 2$

n 85

$sen^4\alpha + sen^2\alpha - 2 = (1 - cos^2\alpha)^2 + 1 - cos^2\alpha - 2 =$

$= 1 + cos^4\alpha - 2cos^2\alpha + 1 - cos^2\alpha - 2 =$

$= cos^4\alpha - 3cos^2\alpha$

87)

$(1-\text{sen}\alpha)(1+\text{sen}\alpha)-2(\text{sen}^6\alpha+\cos^6\alpha) =$

$= 1+\text{sen}\alpha-\text{sen}\alpha-\text{sen}^2\alpha-2\left[(\text{sen}^2\alpha)^3+\cos^6\alpha\right] =$

$= \cos^2\alpha-2\left(1-\cos^2\alpha\right)^3-2\cos^6\alpha =$

$= \cos^2\alpha-2(1-\cos^6\alpha-3\cos^2\alpha+3\cos^4\alpha)-2\cos^6\alpha =$

$= \cos^2\alpha-2+2\cos^6\alpha+6\cos^2\alpha-6\cos^4\alpha-2\cos^6\alpha =$

$= 7\cos^2\alpha-2-6\cos^4\alpha$

$\boxed{\text{m } 84} \quad \alpha\neq k\dfrac{\pi}{2}$

$\text{ctg}^2\alpha-1+\text{sen}^2\alpha = \dfrac{\cos^2\alpha}{\text{sen}^2\alpha}-1+1-\cos^2\alpha =$

$= \dfrac{\cos^2\alpha}{1-\cos^2\alpha}-\cos^2\alpha = \dfrac{\cos^2\alpha-\cos^2\alpha+\cos^4\alpha}{1-\cos^2\alpha} = \dfrac{\cos^4\alpha}{1-\cos^2\alpha}$