1116-30-2874 **Mohammed A. Qazi*** (maqazi@mytu.tuskegee.edu), Dept of Mathematics, Tuskegee, AL 36088. *An L^2 Inequality for Polynomials.*

Let $\mathcal{M}_2(g\,;\,\rho)$ denote the L^2 mean of g on the circle $|z| = \rho$. We prove that for any polynomial $f(z) := \sum_{k=0}^{n} a_k z^k$ of degree at most n, with $|a_{n-k}| = |a_k|$ for $k = 0, 1, \ldots, n$, the ratio $\mathcal{M}_2(f'\,;\,\rho)/\mathcal{M}_2(f\,;\,1)$ is maximized by $f(z) := 1 + z^n$ for all $\rho \in [2^{-1/n}\,, \infty)$. At least in the case where n is even, the restriction on ρ cannot be relaxed. (Received September 22, 2015)