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Mohammed A. Qazi* (qazima@aol.com), Dept of Mathematics, Tuskegee, AL 36088. *An L^p Inequality for Polynomials.*

Let \mathcal{P}_n be the class of all polynomials of degree at most n , and let $\mathcal{M}_p(g; \rho)$ denote the L^p mean of g on the circle of radius ρ centered at the origin. We specify a number $\rho^* \in (0, 1)$, depending on n and k , such that for any $f \in \mathcal{P}_n$, the ratio $\mathcal{M}_p(f^{(k)}; \rho)/\mathcal{M}_p(f; 1)$ is maximized by $f(z) := z^n$ for all $\rho \in [\rho^*, \infty)$ and $p \geq 1$. Here, $f^{(k)}$ denotes the k -th derivative of f . The interest of the result lies in the fact that ρ^* is strictly less than 1. (Received September 17, 2014)