Journal of Classical Analysis
Volume 5, Number 2 (2014), 107–113
doi:10.7153/jca-05-09

GROWTH OF THE MAXIMUM MODULUS OF POLYNOMIALS WITH PRESCRIBED ZEROS

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Abstract. If $p(z) = \sum_{j=0}^{n} a_j^j$ is a polynomial of degree n satisfying $p(z) \neq 0$ in $|z| < 1$, then for $R \geqslant 1$. Ankeny and Rivlin [1] proved that $M(p,R) \leqslant \left(\frac{R^n+1}{2}\right) M(p,1)$. In this paper we obtain some results in this direction by considering polynomials of degree $n \geqslant 2$, having all its zeros on $|z| = k$, $k \leqslant 1$ which is an improvement of the result recently proved by M. S. Pukhta (2013) [*Progress in Applied Mathematics*, **6** (2), 50–58].

Mathematics subject classification (2010): 30A10, 30C10, 30D15, 41A17.
Keywords and phrases: Derivative, Polynomial, Inequality, Zeros.

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Paper JCA-05-09