

Citations From References: 0 From Reviews: 0

## MR3589215 30C10 30C15 Bryant, Derek (1-WCPS);

Gardner, Robert [Gardner, Robert Bentley] (1-ETNS-SS)

Results on the number of zeros in a disk for three types of polynomials. (English summary)

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Summary: "We impose a monotonicity condition with several reversals on the moduli of the coefficients of a polynomial. We then consider three types of polynomials: (1) those satisfying the condition on all of the coefficients, (2) those satisfying the condition on the even indexed and odd indexed coefficients separately, and (3) polynomials of the form  $P(z) = a_0 + \sum_{j=\mu}^n a_j z^j$  where  $\mu \ge 1$  with the coefficients  $a_{\mu}, a_{\mu+1}, \ldots, a_n$  satisfying the condition. For each type of polynomial, we give a result which puts a bound on the number of zeros in a disk (in the complex plane) centered at the origin. For each type, we give an example showing the results are best possible."

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