

# On the number of critical points of a polynomial in a disc

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Let  $p(z)$  be  $n$ -th degree polynomial and let  $z_1, \dots, z_{n-1}$  be its zeroes. We prove that at least  $\lceil \frac{n-1}{2} \rceil$  of its critical points lie in any circle  $C$  that is centered at the arithmetic mean of these zeroes and contains them.

## References

- [1] M. Marden, Geometry of Polynomials, Math. Surveys **3**, Amer. Math. Soc. Providence, RI, 1966.
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