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Trevor J. Richards* (trichards@monmouthcollege.edu), Monmouth, IL 61462. *Rouché's Theorem and the Geometry of Rational Functions.*

The logarithmic derivative of a product of meromorphic functions $f \cdot g$ may, by the magic of the product rule, be broken up into the sum of the logarithmic derivatives:

$$\frac{(fg)'}{fg} = \frac{f'}{f} + \frac{g'}{g}.$$

This presents a ready-made setting for an application of Rouché's theorem. We exploit this fact to establish several results regarding the geometry of rational functions. Included is a "root-dragging" result for rational functions. (Received September 17, 2019)