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Paul Eloe* (pe1oe1@udayton.edu). *The method of quasilinearization applied to boundary value problems for fractional differential equations.*

We apply the method of quasilinearization to several families of boundary value problems for fractional differential equations. We shall consider boundary value problems for both Riemann–Liouville type fractional equations and Caputo type fractional equations. The key issues to apply the particular algorithm we employ are that i) the boundary value problem admits a unique solution and ii) an upper solution is, in fact, bigger than a lower solution. We shall outline the quasilinearization algorithm; however, the primary purpose of this presentation is to address issue ii) for each of the Riemann–Liouville fractional derivative and the Caputo fractional derivative. (Received August 30, 2020)