John R. Graef* (john-graef@utc.edu), Department of Mathematics, University of Tennessee at Chattanooga, Chattanooga, TN. A boundary value problem for a Hadamard fractional differential equation with nonlocal multi-point boundary conditions.

Results on the existence and uniqueness of solutions to a boundary value problem for a nonlinear Hadamard fractional differential equation with nonlocal multi-point boundary conditions are proved. The results are obtained by using a variety of fixed point theorems. Some illustrative examples are given. (Received September 14, 2017)