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**Bhuvanewari Sambandham\*** (buna@suu.edu) and **Aghalaya S. Vatsala**. *Numerical results for Sequential Caputo fractional boundary value problem*. Preliminary report.

Recently, we developed the generalized monotone method for sequential Caputo fractional boundary value problem with mixed boundary conditions which are in terms of Caputo fractional derivative. We have obtained a representation form for the corresponding linear Caputo sequential boundary value problem in terms of the Green's function. In addition, we have obtained a linear comparison result for sequential Caputo fractional differential inequalities with the mixed boundary conditions. The comparison result is useful in proving the monotonicity of iterates as well as the uniqueness of the solution of the nonlinear sequential boundary value problem. Our method yields, the integer results as a special case. In this work, we will develop the numerical methods to solve a linear sequential boundary value problem which will be used as a tool to develop the numerical methods to solve a nonlinear problem by a generalized monotone iterative process in a later work. (Received September 14, 2016)