

1145-34-2317

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In our earlier work, we obtained the solutions of linear sequential Caputo fractional differential equations of order $2q$ in terms of Mittag-Leffler functions. Also, we obtained the representation form for the solution of the initial value problem of the fractional order $2q$ with Laplace transform method. In this work, we develop the numerical results of sequential Caputo fractional differential equations of order $2q$ using Laplace transform methods with a linear nonhomogeneous term. This, in turn, will be useful to develop the numerical results for nonlinear sequential Caputo fractional differential equations. All our results yield the integer order result as the special case. (Received September 25, 2018)