

Title of Article: A one step method for the solution of general second order ordinary differential equations.

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Abstract: In this paper, an implicit one step method for the numerical solution of second order initial value problems of ordinary differential equations has been developed by collocation and interpolation technique. The introduction of an o step point guaranteed the zero stability and consistency of the method. The implicit method developed was implemented as a block which gave simultaneous solutions, as well as their rst derivatives, at both o step and the step point. A comparison of our method to the predictor-corrector method after solving some sample problems reveals that our method performs better.