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1001-65-149 Maitree Podisuk* (mpodisuk@yahoo.com), Faculty of Science, KMITL, Ladkrabang, 10520 Bangkok, Thailand. Open Formulas of Runge-Kutta Method.

In this paper, we will introduce some new open formulas of Runge-Kutta method for finding the numerical solutions of the initial value problem of the ordinary differential equations. The error bounded of some formulas are in the type of O(h(n+2)) instead of O(h(n+1)) for the n-point formula. At the end, we will use these new formulas to find the numerical solution of some selected ordinary differential equations. (Received August 22, 2004)