

Solving neutral delay differential equations of pantograph type by using multistep block method

ABSTRACT

This paper will implement the use of two-point block method in the form of predictor-corrector Adams-Moulton to solve first order neutral delay differential equations (NDDES) of pantograph type. This two-point block method will compute the numerical solution at two points simultaneously. This method will approximate the solutions using constant step size. The delay solutions for the unknown function and its derivative are interpolated using the previous computed values. Numerical results are presented to show that the proposed method is suitable for solving first order neutral delay differential equations (NDDES) of pantograph type.

Keyword: Block method; Neutral delay differential equations; Pantograph