COMPARISON OF ITERATIVE METHOD FOR FINDING ROOT OF NON-LINEAR EQUATION

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ABSTRACT

Root finding is a mathematical problem that can be solved using analytical or theoretical method. Numerical method is preferable due to its ability to find root where theoretical method failed. The aim of the research is to find the roots of function using four different numerical method which include Newton's method, Steffensen's method, Noor 1st method and Noor 2nd method. The result is analysed based on the number of iterations and CPU time. The performance profile by Dolan and More is used to determine the best method. It shows that newton method is the best in terms of number of iteration while Noor 1st method is the best in terms of CPU Time.

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