

**A MODIFICATION OF OSTROWSKI'S METHOD BASED ON  
MODIFIED NEWTON'S METHOD FOR FINDING ROOT**

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## ABSTRACT

Numerical methods in the form of open methods are frequently used to approximate the root of nonlinear functions. Some numerical methods are Newton's method, Modified Newton's method and Ostrowski's method. This research proposed a new numerical method by combining Modified Newton's method and Ostrowski's method for finding the root of nonlinear function. To see the effectiveness and performance of this new numerical method when compared to other numerical methods, eight nonlinear functions with four different initial values and three different tolerances have been tested using *Maple 2023* programming code. The performances are based on the number of iterations, CPU times and error analysis. The numerical results demonstrated that this new Combination of Modified Newton's method and Ostrowski's method is the best numerical method for finding the root of nonlinear function.

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