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| **Abstract:** |  |
| Abstract— In this paper, a simpler approach to Newton's numerical method for optimization has been proposed. The first and second derivatives of the original function in Newton's method have been replaced by the first and second-order finite-divided difference formulas. A problem has been chosen and a MATLAB program has been developed for finding the optimum value using both Newton's method and the proposed modified Newton's method. It has been observed that the proposed method produces the same result produced by Newton's method and takes the same number of iterations and the same amount of execution time. The proposed method eliminates the need for finding the first and second derivatives of the original function and hence this approach is simpler. | |