A Comparison between Solving of Two-Dimensional Nonlinear Fredholm Integral Equations of the Second Kind by the Optimal Homotopy Asymptotic Method and Homotopy Perturbation Method

ABSTRACT. In this article, we present the optimal homotopy asymptotic method (OHAM) and homotopy perturbation method (HPM) for solving 2-dimensional nonlinear Fredholm integral equations of the second kind. A comparison is made between these methods to solve 2-dimensional nonlinear Fredholm integral equations of the second kind. The results show that the presented methods are very powerful and simple techniques in solving 2-dimensional nonlinear Fredholm integral equations of the second kind.