

## A numerical approach for solving the epidemic model

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### Abstract

In this study, the problem of spread of a non-fatal disease in a population which is assumed to have constant size over the period of the epidemic model is considered. Variational iteration method (VIM) is employed to compute an approximation to the solution of the system of nonlinear ordinary differential equations governing on the problem. The results show applicability, accuracy and efficiency of VIM in solving the epidemic model.

*Keywords:* Variational iteration method, The epidemic model

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