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Abstract

The book of Applied Mathematics- Differential Equations presents the basic principles and fundamentals of differential equations (ordinary and partial) and the methods of solutions. For each group of differential equations many solved equations are presented and many non-solved equations are given. The differential equations, which are presented and solved, are of 1st order, 2nd order linear equations, 2nd order equations require special treatment, systems of differential equations of 1st order, Fourier series, and basic principles of Laplace transform. Solutions and using of differential equation for many practical problems of water quality, physics, hydraulics, solutions, chemical and biological reactions, irrigation, drainage, hydrology, mass balance and population dynamics are presented.





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