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R.S. Dahiya* (dahiya@math.iastate.edu), Iowa State University, Department of Mathematics,
400 Carver, Ames, IA 50011-2064. *Multidimensional Laplace transforms involving heat equation
and Green's function.*

This paper deals with the development of theorems that allow us to obtain new Laplace transform pairs. We make use of these transforms along with the methods of Green's function to solve two dimensional heat equation. We also obtain inverses of Laplace transforms numerically by using a numerical code developed by Honing and Hirdes. (Received September 20, 2000)