

Abstract

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Two-Dimensional Problem in Generalized Thermoelasticity with Heat Sources

In this work, a two-dimensional problem for a half-space is solved. The problem is in the context of the theory of generalized thermoelasticity with one relaxation time. The surface of the half-space is taken to be traction free and the temperature on it is specified. Heat sources permeate the medium. Laplace and exponential Fourier transform techniques are used. The solution in the transformed domain is obtained by a direct approach. The inverse double transform is evaluated numerically. Numerical results are obtained and represented graphically.