

Title: Polynomial Approximation Approach To Transient Heat Conduction With Internal Heat Generation.

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Abstract: This work reports polynomial approximation approach to transient heat conduction in along slab, long cylinder and a sphere with linear heat generation. It has been shown that the polynomial approximation method is able to calculate average temperature as function of time for higher value of Biot numbers. This disagrees with Keshavarz and Taheri {19} and also shows that their work becomes a special case of ours. The simplified relations obtained in this study can be for engineering calculations in many conditions.