A STUDY ON $\ensuremath{W_6}$ -CURVATURE TENSORS AND $\ensuremath{W_8}$ -CURVATURE TENSORS IN KENMOTSU MANIFOLDS ADMITTING SEMI-SYMMETRIC METRIC CONNECTION

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Abstract

This paper deals with the study of W_6 -Curvature tensors on Kenmotsu manifolds admitting semi-symmetric metric connection. It has been established that a flat W_6 -Curvature tensor in Kenmotsu manifold with respect to semi-symmetric connection does not imply the manifold is flat with respect to the connection. Further study has revealed the geometrical relationship between W_6 -curvature tensor and W_8 -curvature tensors in Kenmotsu manifold with respect to semi-symmetric metric connection and Levi-Civita connection respectively.

Keywords and phrases: W_6 -Curvature tensor, W_6 -Curvature tensor, W_6 -flat manifold, flat manifold, Kenmotsu manifold, semi-symmetric metric connection.

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