DETERMINANT AND PSEUDO-DETERMINANT OF TADPOLE GRAPHS AND ITS LINE GRAPHS

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Abstract

In the present paper, we apply a standard computational procedure to find co-efficients of characteristic polynomial of a graph described in [4]. The non-zero coefficient of the least degree term in the characteristic polynomial gives directly the product of non-zero eigenvalues of the graph. As a result, we can compute an important graph invariant, namely, $det(G)$ determinant of a graph G [1] or $Pdet(G)$ pseudo-determinant of a graph G [8]. In the present work, we have computed extensively the $det(G)$ or $Pdet(G)$ for all Tadpole graphs $T_{m,n}$ and their line graphs.

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Key Words : *Tadpole graph, Line graph of Tadpole graph, Characteristic polynomial of a graph, Determinant and Pseudo-Determinant of a graph.*

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