



TREES WITH DIAMETER 5 AND NON-SINGULAR COMPLEMENT

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Abstract

A graph G is said to be singular if its adjacency matrix is singular; otherwise, it is said to be non-singular. Non-singular trees have been completely characterized. Moreover, the singularity or non-singularity of the complement of a tree with diameter less than 5 has been completely determined. We now consider the complement \bar{T} of a tree T with diameter 5 and find the determinant of the adjacency matrix of \bar{T} . Furthermore, we shall determine the singularity or non-singularity of the complement of a certain class of trees with diameter 5.

Received: March 28, 2015; Accepted: June 15, 2015

2010 Mathematics Subject Classification: 05C50, 05B20.

Keywords and phrases: adjacency matrix, complement of tree, tree with diameter 5.

Communicated by K. K. Azad