Haixing Zhao and Xueliang Li On the Fibonacci numbers of trees, Fibonacci Quart. 44 (2006), no. 1, 32–38.

Abstract

For a graph G, Fibonacci Number of G is defined as the number of subsets of V(G) in which no two vertices are adjacent in G. In this paper, we first investigate the orderings of two classes of trees by their Fibonacci numbers. Using these orderings, we determine the unique tree with the second, and respectively the third smallest Fibonacci number among all trees with n vertices.