

1067-05-2294

Ji Young Choi* (jychoi@ship.edu). *Minimum P_k -total weights of graphs.* Preliminary report.

For a positive integer k , the P_k -total weight for a ± 1 -edge assigned graph G is the absolute value of the sum of the weights for every possible non-cyclic path of length k . The minimum P_k -total weight of a graph G is defined as the minimum of the P_k -total weight of G , considering every possible ± 1 -edge assignment. This talk presents the minimum P_k -total weights for several simple connected graphs to find its bounds and the sufficient conditions for 0 minimum P_k -total weight. (Received September 22, 2010)