

ON THE DECOMPOSITIONS OF COMPLETE GRAPHS INTO CYCLES AND STARS ON THE SAME NUMBER OF EDGES

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Abstract

Let C_m and S_m denote a cycle and a star on m edges, respectively. We investigate the decomposition of the complete graphs, K_n , into cycles and stars on the same number of edges. We give an algorithm that determines values of n , for a given value of m , where K_n is $\{C_m, S_m\}$ -decomposable. We show that the obvious necessary condition is sufficient for such decompositions to exist for different values of m .

Keywords: cycles, stars, graph-decompositions.

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