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On Size Multipartite Ramsey Numbers for Stars versus Cycles

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Abstract

For given two graphs G_1 and G_2 , and integer $j \geq 2$, the *size multipartite Ramsey numbers* $m_j(G_1, G_2)$ is the smallest integer t such that every factorization of the graph $K_{j \times t} := F_1 \oplus F_2$ satisfies the following condition: either F_1 contains G_1 or F_2 contains G_2 . In this paper, we determine $m_j(S_m, C_n)$ for $j, m, n \geq 3$ where S_m is a star on m vertices and C_n is a cycle on n vertices.

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