On Star-critical $(K_{1,n}, K_{1,m} + e)$ Ramsey numbers

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Abstract

Let K_n denote the complete graph on n vertices and G, H be finite graphs without loops or multiple edges. If for every red/blue coloring of edges of the complete graph K_n, there exists a red copy of G, or a blue copy of H, we will say that $K_n \to (G, H)$. The Ramsey number $r(G, H)$ is the smallest positive integer n such that $K_n \to (G, H)$. Star-critical Ramsey number $r_*(G, H)$ is defined as the largest value of k such that $K_{r(G,H)-1} \sqcup K_{1,k} \to (G, H)$. In this paper, we will find $r_*(K_{1,n}, K_{1,m} + e)$ for all $n, m \geq 3$.

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