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Ramsey-minimal graphs for the pair star, connected graph. (In English)

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Let F , G and H be graphs (without loops or multiple edges). We write $F \rightarrow (G, H)$ if whenever each edge of F is colored either red or blue, then either the red subgraph of F , denoted $(F)_R$, contains a copy of G or the blue subgraph of F , denoted $(F)_B$, contains a copy of H . The graph F is (G, H) -minimal if $F \rightarrow (G, H)$ but $F' \not\rightarrow (G, H)$ for any proper subgraph F' of F . The pair (G, H) will be called Ramsey-finite or Ramsey-infinite depending upon the number of such pairs. In this paper it is proved that $(H, K_{1,k})$ is Ramsey-infinite for any non-trivial two-connected graph G and any star with $k \geq 2$ edges. Also it is shown that $(H, K_{1,2})$ is Ramsey-infinite if H is a bridgeless connected graph.

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05C55 Generalized Ramsey theory

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Ramsey-minimal graphs; Ramsey-finite; Ramsey-infinite