THE PROPERTIES OF SOME NONCLASSICAL RAMSEY NUMBERS

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The upper domination Ramsey number $u(m,n)$ is the smallest integer $p$ such that every 2-coloring of the edges of $K_p$ with color red and blue, $\Gamma(B) \geq m$ or $\Gamma(R) \geq n$. The mixed domination Ramsey number $v(m,n)$ is the smallest integer $p$ such that every 2-coloring of the edges of $K_p$ with color red and blue, $\Gamma(B) \geq m$ or $\beta(R) \geq n$. In both cases $B$ and $R$ is the subgraph of $K_p$ induced by blue and red edges, respectively; $\Gamma(G)$ is the maximum cardinality of a minimal dominating set of a graph $G$, $\beta(G)$ is the maximum cardinality among the independent sets of vertices of $G$. In this talk we present some properties that may be helpful in determining new values for above described nonclassical Ramsey numbers.

Keywords: the upper domination Ramsey number, the mixed domination Ramsey number.

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References


