The deleted edge numbers $de(P_m,K_{1,n})$ and $de(K_{1,3},K_{m,n})$

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Abstract. In the paper [Australas. J. Combin. 74 (3) (2019), 476-485], Budden and Dejonge defined the k-deleted Ramsey number, where $k \in \mathbb{N}$, and the deleted edge number in order to study the destruction of Ramsey property by the removal of edges incident at any fixed vertex. Given simple graphs G and H, the k-deleted Ramsey number $D_k(G, H)$ is the least $n \in \mathbb{N}$ such that every 2-edge-colouring of $K_n - E(K_{1,k})$, $k \leq n - 1$, contains a copy of G in colour 1 or a copy of H in colour 2. The deleted edge number de(G, H) is defined as the least $k \in \mathbb{N}$ such that $D_{k-1}(G, H) < D_k(G, H)$. In this paper, we give bounds to de(G, H), when $(G, H) = (P_m, K_{1,n})$ for certain values of m and n; and when $(G, H) = (K_{1,3}, K_{m,n})$ for all values of m and n, where $n \geq m \geq 2$. Also, we prove that $de(P_m, K_{1,n}) =$ $R(P_m, K_{1,n}) - 1$, when $n \equiv 1 \pmod{m-1}$.

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