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The Ramsey numbers $R(K_4 - e, K_6 - e)$ and $R(K_4 - e, K_7 - e)$.

Proceedings of the Twenty-second Southeastern Conference on Combinatorics, Graph Theory, and Computing (Baton Rouge, LA, 1991).
Congr. Numer. **81** (1991), 89–95.

Summary: "In this paper, the graph with vertices in GF(16) whose edges connect points having difference equal to a cube, which was known to be extremal for the Ramsey numbers $R(3, 3, 3)$ and $R(K_3, K_6 - e)$, is shown to be extremal for $R(K_4 - e, K_6 - e)$. The proof is obtained by using computer algorithms to analyze the properties of the family of graphs having no $K_4 - e$ and having no $K_5 - e$ in the complement. It is also shown here that there is a unique graph, up to graph isomorphism, which is extremal for $R(K_4 - e, K_7 - e)$, viz., the strongly regular Schlafli graph on 27 vertices, which has an automorphism group of size 51840. This follows easily from the result that $R(K_4 - e, K_6 - e)$ is 17."

{For the entire collection see MR 92i:05002}.