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Decomposition of complete graphs into disconnected unicyclic graphs with six edges

Let G be a disconnected unicyclic graph with six edges. We prove that G decomposes the complete graph K_n if and only if $n \equiv 0, 1, 4$, or $9 \pmod{12}$, with one exception when $n = 9$. In this talk, I will discuss methods used to prove this result. This result, along with other knows results, gives a complete answer as to which complete graphs allow G-decompositions when G is a graph with six edges.