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Multidesigns for a Graph Pair of Order 6

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MULTIDESIGNS FOR A GRAPH PAIR OF ORDER 6

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A (G,H)-multipacking of a complete graph on n vertices is a collection of edge disjoint subgraphs of that complete graph, each isomorphic to G or H with the property that at least one copy of G and at least copy of H is used. Such a multipacking is called a maximum if the number of unused edges is minimum. Last year we worked on multidecompositions of complete graphs into graph pairs of order 6. We extended these results by characterizing the multipackings and mutilcoverings of those complete graphs that do not admit multidecompositions into graph pairs of order 6.