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A note on the thickness of some complete bipartite graphs *

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Abstract: The thickness of a graph is the minimum number of planar subgraphs into which the graph can be decomposed. Determining the thickness for the complete bipartite graph is an unsolved problem in graph theory for over fifty years. Using a new planar decomposition for $K_{4k-4,4k}$ ($k \geq 4$), we obtain the thickness of the complete bipartite graph $K_{n,n+4}$, for $n \geq 1$.

Keywords: Planar graph, thickness, complete bipartite graph.

Math. Subj. Class.: 05C10

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Opomba o debelini nekaterih polnih dvodelnih grafov *

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Povzetek: Debelina grafa je minimalno število ravninskih podgrafov, na katere ga lahko razdelimo. Določitev debeline polnega dvodelnega grafa je že več kot petdeset let nerešen problem v teoriji grafov. S pomočjo nove ravninske razdelitve grafa $K_{4k-4,4k}$ ($k \geq 4$) dobimo debelino polnega dvodelnega grafa $K_{n,n+4}$, za $n \geq 1$.

Cljučne besede: Ravninski graf, debelina, polni dvodelni graf.

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