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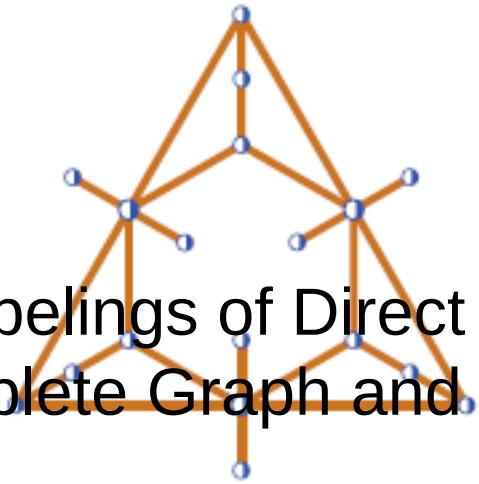

# $L(j,k)$-Labelings of Direct Products of a Complete Graph and a Cycle

**Content** :

An $L(j,k)$ labeling of a graph is a vertex labeling such that the difference of the labels of any two adjacent vertices is at least $j$ and that of any two vertices of
distance $2$ is at least $k$. The minimum span of all $L(j,k)$-labelings of the graph is denoted by $\lambda_k^j$.

In 2008, Lin and Lam provided $\lambda_1^2(G)$ for a direct product of a complete graph and a cycle $G$ with special orders. We extend their result for $G$ with other orders. Also
we obtain an upper bound of $\lambda_1^1(G)$ for a direct product of a complete graph and a cycle $G$.

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