

Graceful labellings for an infinite class of generalised Petersen graphs

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Abstract

We exhibit a graceful labelling for each generalised Petersen graph $P_{8t,3}$ with $t \geq 1$. As an easy consequence, we obtain that for any fixed t the corresponding graph is the unique starter graph for a cyclic edge-decomposition of the complete graph K_{2t+1} . Due to its extreme versatility, the technique employed looks promising for finding new graceful labellings, not necessarily involving generalised Petersen graphs.