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Zhanar Berikkyzy* (zhanar@ucr.edu), **Ryan Martin** and **Chelsea Peck**. *On the Edit Distance of Powers of Cycles*. Preliminary report.

The edit distance between two graphs on the same labeled vertex set is defined to be the size of the symmetric difference of the edge sets. The edit distance function of a hereditary property \mathcal{H} is a function of $p \in [0, 1]$ that measures, in the limit, the maximum normalized edit distance between a graph of density p and \mathcal{H} .

In this work, we address the edit distance function for $\text{forb}(H)$, where $H = C_h^t$, the t^{th} power of the cycle of length h . For $h \geq 2t(t+1) + 1$ and h not divisible by $t+1$, we determine the function for all values of p . For $h \geq 2t(t+1) + 1$ and h divisible by $t+1$, the function is obtained for all but small values of p . We also obtain some results for smaller values of h . (Received August 10, 2017)