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The equivalency problem for cyclic combinatorial objects

A class of cyclic objects on n elements is a class of combinatorial objects on these elements. Isomorphisms of these objects are permutations of S_n and the automorphism group of each object contains a cycle of length n . Classes include circulant (di)graphs, cyclic designs and cyclic codes. Brand characterized the set of permutations by which two cyclic combinatorial objects on p^r elements, p odd, are equivalent. Huffman et al explicitly gave the set in the case $r = 2$. We extend the results of Brand and Huffman et al to $r > 2$ and present algorithms which provide a partial solution to this problem.