

Ideas from the classification of cycle structure, cont

To show that each residue class contains exactly one residue class, we note that if x is in a cycle of length j , then

$$\sigma_{abc}^j(x) = x + m(a + b) - ld = x.$$

and $m + l \leq j$.

We show that $\lceil \frac{n}{k} \rceil / 2 < j$.