

Instructions. Write all answers clearly on one piece of paper, and put all group members' names on the top of the paper. If you talk, you must do so **very quietly!**

1. Write down three names of notations in which a permutation can be written or encoded.
2. (True/False) Two permutations commute.
3. (True/False) Two cycles which have no numbers in common commute.
4. How is the order of a permutation obtained from its disjoint cycle form?
5. How can we split the set of permutations (on, say, $\{1, \dots, n\}$ for $n \geq 2$) into two subsets of equal size?