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. Give an informal but complete definition of the order of an element of a group.
2. Name two subgroups of the complex numbers under addition.
3. Name a group $G$ and a subset $H$ of $G$ which is not a subgroup under the operation of $G$.
4. (True/False) In order for $H$ to be a subgroup of $G$, $H$ must be a subset of $G$ and have the same group operation as $G$.
5. (True/False) In order for $H$ to be a subgroup of $G$, $H$ must be a nonempty finite subset of $G$ and must be closed with respect to the same group operation as $G$. 