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. If H is a subgroup of a group G, then what is a left coset of H in G?

2. Suppose $|G| = 10$ and $|H| = 5$, where H is a subgroup of G. How many distinct left cosets of H are there in G?

3. What is the difference between a left coset and a right coset of H in G?

4. (True/False) All left cosets of H in G are the same size.

5. (True/False) What does Lagrange's Theorem say about H and G when H is a subgroup of a group G?