

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. What is the Euclidean algorithm typically used for?
2. State the Fundamental Theorem of Arithmetic in general language (an explicit mathematical statement is not necessary).
3. What is the difference between the First and Second Principles of Mathematical Induction? (Sometimes the Second Principle is called “strong induction.”)
4. Why are partitions and equivalence relations on a given set often considered to be companion structures?