Math 31: Quiz 3   Name:_____

Instructions: Answer the following questions without consulting any outside source (such as notes or the textbook).

1. What is the difference between a group homomorphism and a group isomorphism?

2. What is the difference between a group isomorphism and a group automorphism?

3. If $\varphi : G \to H$ is a group isomorphism, $g \in G$ and $|g| = n$. What is $|\varphi(g)|$?

4. Give an example of two groups which are isomorphic to one another. (you do not need to specify the isomorphism)