Name _____ The Fundamental Theorem

1) Describe the fundamental isomorphism theorem in words.

2) Let G be a group, and let $g \in G$ be an element with order 36. Now construct a homomorphism $f: \mathbb{Z} \to G$ via $f(n) = g^n$. Describe the range of f and justify your description.

3) Describe $2\mathbb{Z}/6\mathbb{Z}$.