1a) Describe the idea of a quotient group G/N in terms of fibers.

1b) What are three facts/theorems you learned last week? (Not definitions)

2) For this problem we consider the group S_3 and the subgroup $H = \{e, (1\ 2\ 3), (1\ 3\ 2)\}$. Prove that there is some homomorphism $\varphi: S_3 \to G$ such that $\ker(\varphi) = H$.