1. Let G be the set of invertible functions. Define the composition operation for $f, g \in G$ by $(f \circ g)(x) = f(g(x))$. Is $(G, \circ)$ a group?

   Solution:
   These topics will not be tested at the final.

2. Let G and $\circ$ be defined as in question 1. Define the addition operation for $f, g \in G$ by $(f \# g)(x) = f(x) + g(x)$. Is $(G, \#, \circ)$ a Field?

Solution:
These topics will not be tested at the final.