

Q1: Consider the Heisenberg group  $H(\mathbb{F}_p) = \left\{ \begin{bmatrix} 1 & a & b \\ 0 & 1 & c \\ 0 & 0 & 1 \end{bmatrix} : a, b, c \in \mathbb{F}_p \right\}$  for  $p$  prime. This is a group, and has an order of  $|G| = p^3$ . Note that this is not abelian, since matrices only commute with diagonal matrices.