Q3: It is clear that $|\mathbb{Z}/p\mathbb{Z}| = p$. Let $n \in C_p$ be a nonidentity element. We claim that $\langle n \rangle = C_p$. By Lagrange's Theorem, the size of any subgroup of C_p must divide p. Since p is prime we have that every subgroup must either be trivial or the entire group. Since $\langle n \rangle$ is not trivial, since we assume $n \neq e$, we have that $\langle n \rangle = C_p$.