171 — Homework 2

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Section 3

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Aditional Excercises

1 Let G be a group and $a \in G$. Prove that $(a')' = a$.

2 Let $\langle S, * \rangle$ be a binary algebraic structure and define Aut(S) be the set of isomorphism from S to S. That is,

$$\text{Aut}(S) = \{f : S \to S | f \text{ is an automorphism}\}$$

Prove that Aut$(S), \circ\rangle$ is a group, where $\circ$ is the usual function composition. You don't need to prove that $\circ$ is associative (this is well-known) and you may use results used in class as long as you cite them.