Name ______ Math 541 Quiz I September 15, 2000 Suppose that $f \in A(S)$. Define $F : A(S) \to A(S)$ by

 $F(g) = f \circ g \circ f^{-1}$

for $g \in A(S)$. Show that

$$F(g \circ h) = F(g) \circ F(h).$$

What is $F(\mathrm{id}_S)$?