Name:
June 9, 2017
MAS 4301.8385
Cyr

Quiz 4

You must give complete, mathematically correct proofs to receive full credit!!

Problem 1. (5 points) Let $G = (\mathbb{R}^+, \cdot)$ and $H = (\mathbb{R}, +)$. Show that $\phi : G \to H$ defined by $\phi(x) = \ln x$ is an isomorphism.

Problem 2. (5 points) Let $G = S_3$. Find the image of every element of G under the inner automorphism of G induced by the element (12).