

Name:
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MAS 4301.8385
Cyr

Quiz 2

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

Problem 1. (5 points) Let $G = \left\{ \begin{bmatrix} 1 & a \\ 0 & 1 \end{bmatrix} \mid a \in \mathbb{R} \right\}$. Prove that G is a group under matrix multiplication.

Problem 2. (5 points) Let G be a group of functions from \mathbb{R} to \mathbb{R} , where the operation is addition of functions. Prove that $H = \{f \in G \mid f(1) = 0\}$ is a subgroup of G .