

MATH 120A: HOMEWORK 3

I SHU LAI

DR. DONALDSON

26 APRIL 2018

Problem 1. For each of the following sets with operation $(G, *)$, briefly show which of the group axioms are satisfied and which are not.

- (a) The mapping $f: \mathbb{Z} \rightarrow \mathbb{Z}$ given by $f(x) = x + 2$ is not a group homomorphism of additive groups because $f(0) = 2 \neq 0$.

Proof.

□

- (b) The mapping $f: \mathbb{R} \rightarrow \mathbb{Q}$ given by...

Proof.

□