Problem Set 8

D. Zack Garza

November 13, 2019

Contents

1 Problem 1

1.1 Part a

Define a map

$$\phi : \hom_R(\mathbb{Z}_m, A) \to A$$
$$(f : \mathbb{Z}_m \to A) \mapsto f(1)$$

Then noting that homomorphisms preserve orders, this forces $mf(1) = 0_A$