Question: 2

Prove

Solution:

Question: 9

Prove

Solution:

Question: 11

Prove

Solution:

Question: 14

idk

Question: P1

Let T be the circle group as defined in the text: the set of all complex numbers of modulus one, with operation being multiplication. Let $\psi : T \to T$ be the map defined by $\psi(z) = z^2$.

a. Prove that ψ is a homomorphism of T.

b. Determine the kernel K of ψ.

c. Show that $T/K \cong T$.