

Universidad del Valle de Guatemala
Departamento de Matemática
Licenciatura en Matemática Aplicada

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MM2035 - Álgebra Moderna - Catedrático: Ricardo Barrientos
18 de septiembre de 2022

Tarea 16

Problemas 6 y 7, sección 3.7.

Problema 1 (Problema 6). *Prove that the units in a commutative ring with a unit element form an abelian group.*

Demostración. ■

Problema 2 (Problema 7). *Given two elements a, b in the Euclidean ring R their least common multiple $c \in R$ is an element in R such that $a \mid c$ and $b \mid c$ and such that whenever $a \mid x$ and $b \mid x$ for $x \in R$ then $c \mid x$. Prove that any two elements in the Euclidean ring R have a least common multiple in R .*

Demostración. ■