

## Binary Operations

Set	Operation(?)	associative	Set contains an identity element	every element in Set has an inverse	commutative	Set with Operation is a group
integers	addition					
integers	subtraction					
integers	multiplication					
integers	division					
rational numbers	addition					
irrational numbers	addition					
positive real numbers	multiplication					
functions from $\mathbb{N}$ to $\mathbb{N}$	composition					
bijective functions from $\mathbb{N}$ to $\mathbb{N}$	composition					
$2 \times 2$ real matrices	addition					
$2 \times 2$ real matrices	matrix multiplication					