Teoria da Computação

MIEI 2018/2019 - FCT UNL

Aula Prática 5

Countable and uncountable sets

Justify whether the following sets are countable or uncountable.

1. The set of all functions from $SLAMP$ to $SLAMP$.
2. The set of all functions from $SLAMP$ to NAT.
3. The set of all finite-length sequences of natural numbers.
4. The set of all finite subsets of the natural numbers.
5. The set of all functions $NAT \to NAT$.
6. Show that the intersection of two coutable sets is countable.
7. Give examples to show that the intersection of two uncountable sets is either countable (for both finite and infinite) or uncountable.