Homework Assignment #7 Due: July 3, 2012 at 7:00 p.m.

Submit your solution to this assignment as a pdf file using the submit command.

- 1. Let IN be the set of all natural numbers.
 - (a) Prove that the set of all finite subsets of $\mathbb N$ is countable.
 - (b) Prove that the set of all subsets of \mathbb{N} (i.e., $\mathscr{P}(\mathbb{N})$) is uncountable.