

## MATH 450 Seminar in Proof

Prove that the set of all infinite binary strings are uncountable.

*Proof.* Let us proceed by contradiction. Let  $A$  be the set that represents the set of all possible infinite binary strings. Then we assume that  $A$  is countable, i.e.  $|A| = |\mathbb{N}|$  then we can  $\square$