The important issue is the logic you used to arrive at your answer.

1. Consider the set A of all finitely long strings of 0's and 1's. Is A finite, countably infinite, or uncountably infinite? Prove your claim.

2. Consider the set B of all integer-valued functions defined on the set $\{0, 1\}$. Is B finite, countably infinite, or uncountably infinite? Prove your claim.

3. Consider the set C of all ordered pairs of reals of the form (a, b) where $a \leq b$. Is C finite, countably infinite, or uncountably infinite? Prove your claim.