

**Question Number 10**

Find the flaw in the following argument: Consider the following attack against one-time pad: upon seeing a ciphertext  $c$ , the eavesdropper tries every candidate key  $k \in \{0, 1\}^n$  until she has found the one that was used, at which point she outputs the plaintext  $m$ . This contradicts the argument that the eavesdropper can obtain no information about  $m$  by seeing the ciphertext.

**Solution.** Solution is in notebook.