

Name: _____

Honor Code: _____

Theory of Computation

Quiz #3 – Proofs and the pumping lemma

1. Prove the following language is regular: The language of all strings with the same number of 0 to 1 transitions as 1 to 0 transitions.

2. Prove that the following language is not regular. The language of all strings consisting of $0^n1^n0^n$ where $n \geq 0$. (You may find it interesting that this language is a subset of the language above.)