

Context-Free Pumping Lemma

CS 311, Fall 2015

Exercise 1 Use the context-free pumping lemma to show that the following language is not regular.

$$\{0^n 1^n 0^n 1^n \mid n \geq 0\}$$

Exercise 2 Use the context-free pumping lemma to show that the following language is not regular.

$\{a + b = c \mid a, b, c \in \{0, 1\}^* \text{ and the binary numbers represented by } a \text{ and } b \text{ sum to } c\}$