

BRAC University
Dept. of Computer Science and Engineering
Fall 2024
CSE331 - Assignment 2
Deadline: January 04 11:45 PM

1. Use the pumping lemma to demonstrate that the following languages are not regular.
 - a. $L = \{ w \in \{0,1\}^* : ww^R \text{ and } w^R \text{ means } w \text{ in reverse} \}$
 - b. $L = \{ w \in \{a,b\}^* : w = b^n a^m \text{ where } n > m, m \geq 0 \}$
 - c. $L = \{ w \in \{0,1,2,3\}^* : w = 1^n 0^m 3^n 2^m \text{ where } n, m \geq 0 \}$
 - d. $L = \{ w \in \{0,1\}^* : w = 1^n : n \text{ is a power of three} \}$