

CMPE 350 - Spring 2019

PS 6 - 25.03.19

2.5 Give informal descriptions and state diagrams of pushdown automata for the languages in 2.4.

2.7 Give informal English descriptions of PDAs for the languages in Exercise 2.6.

2.44 If A and B are languages, define $A \diamond B = \{xy \mid x \in A \text{ and } y \in B \text{ and } |x| = |y|\}$. Show that if A and B are regular languages, then $A \diamond B$ is CFL.

- Prove that there are infinitely many context-free languages which are non-regular.
- For some $n \geq 1$, does there exist an n -state PDA which accepts finitely many strings and at least one of those strings is of length n ?