

Today HW due. Context-free grammars; push-down automata. § 2. {0, 1, 2}

Next class Quiz 1. Non-context-free languages. § 2.3

1. List the members of your group below. Underline your name.

2. For each part below, determine if the given grammar generates the string. If so, provide a leftmost derivation. If not, justify your answer.

(a) $bc b$

(b) $bcbcb a$

(c) $bbcbcb b$

$A \rightarrow Bb \mid cC \mid CBA \mid a$

$B \rightarrow BCC \mid b$

$C \rightarrow BBC \mid cb$

3. Prove or disprove (separately): $L = \{a^i c^j b^{2i} \mid i, j \geq 0\}$ is

(a) context-free.

(b) regular.