

Homework 7

Joe Puccio

February 1, 2022

3.1.2

$$S \Rightarrow bAb \Rightarrow bSSb \Rightarrow baAaSb \Rightarrow baAabAbb \Rightarrow baabAbb \Rightarrow baabbb.$$

3.1.5

$$\text{a) } S \Rightarrow aB \Rightarrow abS \Rightarrow abaB \Rightarrow ababS \Rightarrow ababbA \Rightarrow ababba$$

3.

there at least 1 or fewer a's than b's. at least 1 more b than a. Let $G = (V, \Sigma, R, S)$, where $V = \{a, b, S, A, B\}$, $\Sigma = \{a, b\}$, and $R = \{S \Rightarrow A, A \Rightarrow aAb, A \Rightarrow B, B \Rightarrow bB, B \Rightarrow b\}$