1) Construct a context-free grammar for each of the following languages $\Sigma = \{a, b\}$.

      a) $\{w : w$ has n b's, followed by an a, followed by n b's, for some $n \geq 0\}$
      b) $\{w : w$ has the same first, last, and middle symbol$\}$
      c) $\{a^n b^n b^n : n \geq 0\}$

2) For each of the languages in question 1, construct a push-down automaton.