1. Give a regular grammar for the set of all binary strings that have even length and start with a 1.

\[ A \rightarrow \varepsilon B \]
\[ B \rightarrow 0C \]
\[ C \rightarrow 0B \]
\[ C \rightarrow 1B \]
\[ B \rightarrow 0 \]
\[ B \rightarrow 1 \]

2. Consider the following PDA.

(a) Give two strings of length 4 accepted by the PDA.

(b) Give two strings of length 4 NOT accepted by the PDA.

(c) Describe in succinct-ish English the language of this PDA. Be precise.

All strings whose first and last bits are different.