F. Construct a regular grammar for the language of all strings over $\Sigma = \{a, b\}$ that start with 'a' and end with 'b'

$S \rightarrow aA$

$A \rightarrow aA|\ bB$

$B \rightarrow aA|\ b|\ \epsilon$

G. Construct a regular grammar for the language of all binary strings over the alphabet $\{0, 1\}$ that have an even number of 1's.

$S \rightarrow 0S|\ 1A|\ \epsilon$

$A \rightarrow 0A\ |\ 1S$

I. Construct a regular grammar for the language of all strings over $\Sigma = \{a, b\}$ that have at most one a.

$S \rightarrow bS|\ \ aA|\ \ b\ \epsilon$

$A \rightarrow bA\ |\epsilon$

J. Construct a regular grammar for the language of all strings over $\Sigma = \{a, b\}$ where the substring abb appears.

$S \rightarrow AabbB$

$A \rightarrow \epsilon\ |aA\ |bA$

$B \rightarrow \epsilon\ |aB\ |bB$

K. Construct a regular grammar for the language of all strings over $\Sigma = \{a, b\}$ that are palindromes.
Cannot generate using regular grammar.
A regular grammar cannot adequately track the middle of the string and then compare the second half to the first half, which is necessary for checking palindromes.

L. Construct a regular grammar for the language of all strings over $\Sigma = \{a, b\}$ that do not contain the substring aa.
$S \rightarrow aB \mid bA \mid b$
$A \rightarrow bA \mid aB \mid \epsilon$
$B \rightarrow bB \mid \epsilon$