1. Find an s-grammar for the language $L(aaa*b + b)$.

2. Find an s-grammar for $L = \{a^n b^{n+1} : n \geq 2\}$.

3. Show that the following grammar is ambiguous:

   $S \rightarrow AB \mid aaB$
   $A \rightarrow a \mid Aa$
   $B \rightarrow b$

4. Construct an unambiguous grammar equivalent to the grammar in the previous problem.

5. Show that the following grammar is ambiguous:

   $S \rightarrow aSbS \mid bSaS \mid \lambda$