Formal Language Selected Homework Chapter 5.2

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

6. Show that the following grammar is ambiguous.

$$S \rightarrow AB|aaB,$$
$$A \rightarrow a|Aa,$$
$$B \rightarrow b.$$

9. Show that a regular language cannot be inherently ambiguous.

14. Show that the grammar in Example 5.4 is ambiguous, but that the language denoted by it is not.

Example 5.4 Consider the grammar with productions

$$S \rightarrow aSb|SS|\lambda.$$