Theory of Computation

1. Prove that the following grammar is ambiguous.

$$S \rightarrow S + S \mid S - S \mid S * S \mid S/S \mid c$$

2. Find CFG for the language L.

$$L = \{\, a^i b^j : i \leq j \,\}$$

*3. Find the language of the following grammar.

$$G: S \rightarrow aA \mid bA \mid a \mid b$$
$$A \rightarrow aS \mid bS$$