

Problem 1

Part a

The language of strings of zero or more a's.

Part b

The language consisting of strings of at least two or more a's and b's.

Part c

The language consisting of strings with an odd number of a's.

Part d

The language consisting of strings of one or more a's followed by one or more b's.

Problem 2

$$S \rightarrow abcS$$

$$S \rightarrow \epsilon$$

Problem 3

$$S \rightarrow aA$$

$$A \rightarrow aaA$$

$$A \rightarrow \epsilon$$