

Automata Theory

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Chapter 1

Regular expressions

Theorem 1. $aab \in a^*b^*$

Proof. easy

□

Chapter 2

Context-free languages

Definition 2. Define the context-free grammar G_1 as $S \rightarrow \varepsilon | aSb$.

Theorem 3. $\varepsilon \in L(G_1)$

Proof. easy

□

Theorem 4. $ab \in L(G_1)$

Proof. easy

□