

Worksheet 1: DFAs and Regular Languages

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1 Drawing DFAs

Draw a DFA that decides the following language $L = \{s \in \{a, b\}^* \mid s \text{ starts and ends with the same letter}\}$.

2 Formal DFAs

Provide a formal description of the DFA that decides binary multiples of three.

3 Proof by Construction

Prove that the regular languages are closed under complement.