

Assignment 5

Automata & Theory of Computation

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1. Find a regular expression for the language

(1) $L = \{ a^n b^m : n \geq 3, m \text{ is odd} \}$.

$$r = aaa(a)^*(bb)^*b$$

(2) $L = \{ a^n b^m : n \geq 3, m \leq 4 \}$.

$$r = aaa(a)^*(1 + b + bb + bbb + bbbb)$$

2. Find an nfa that accepts $L(r)$, where $r = (a^*a + ab)$.

