

Homework till the 2th of May

- 1 Provide the denotational semantics of numbers in base 5 using \mathbb{N}_0 as domain. Demonstrate your semantics by formally calculating the decimal value of 123_5 .
- 2 Build the underlying regular automaton of $a^*; b^*$. (Graphical notation is sufficient.)
- 3 Show using proof trees that $a^*; b^* \xRightarrow{a}^* 1$.