

Exercises for chapter: *yacc*

1. Try to write *lex* or *yacc* programs for the following languages:

$$a^nb^m, \quad a^nb^n, \quad a^nb^nc^n$$

2. Discuss the theoretical power of *lex* and *yacc*.
Use the \TeX parser you wrote in *lex* to parse \LaTeX documents. The parser should
 - Report the documentclass used;
 - Check that `\begin{document}` and `\end{document}` are used, with no text before the begin command;
 - Know about some commands with one argument, such as `\textbf`, and properly recognize that argument
 - Recognize proper matching of begin/end of an environment.Bonus: let your parser interpret `\newcommand` correctly. You can limit yourself to the the case of commands with one argument, that is `\newcommand{\foo}[1]{ ... }`