A tiny example of LaTeX (and TeX)

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1 Introduction

This is a small document that demonstrates a few features of LaTeX. You can build it by typing the command pdflatex example.tex.

LaTeX was developed by Leslie Lamport but is actually a program written on top of the TeX system created by Donald Knuth. TeX is very powerful and LaTeX inherits its power.

LaTeX has many useful built-in macros. For example, we can make words bold or large using the \textbf and \LARGE macros. We can even create colored text with the help of the xcolor package. We can also include figures using the graphicx package, or draw them directly using Tikz. (Notice that the hyperref package lets us create hyperlinks.)

2 Macros

TeX is a programming language! So we can define our own macros. For example, we can define a macro that puts its argument in double quotation marks:

\newcommand\quoteit[1]{''#1''}
This is \quoteit{a win}.

This is "a win".

We can even define recursive functions and use them to do computation (see example.tex):   Why type when you can program instead? (1) Why type when you can program instead? (2) Why type when you can program instead? (3) Why type when you can program instead? (4) Why type when you can program instead? (5) Why type when you can program instead? (6) Why type when you can program instead? (7) Why type when you can program instead? (8) Why type when you can program instead? (9) Why type when you can program instead? (10) Why type when you can program instead?
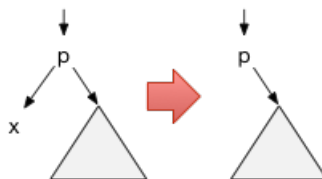

Figure 1: Deleting a leaf node