Document Structure

Eurname Heer

July 4, 2001

Contents

1 Introduction 1
2 The Plot Thickens 1
3 The Surprising Conclusion 2

1 Introduction

Most articles are broken up into sections. The section command will take care of this for you. There are also subsection commands, and further ways to subdivide your text. You can use the tableofcontents command to display the structure of your document.

2 The Plot Thickens

There are three common ways to make lists: these are similar to unordered list, ordered list, and definition list in HTML, if you’re familiar with that system. Here is a use of the unordered list:

- The itemize command creates simple lists.
- The enumerate command creates numbered lists.
- The description command makes lists of items and their definitions or descriptions.

Let’s just repeat this example, but now using the enumerate command. The only difference is that items are numbered.

1. The itemize command creates simple lists.
2. The enumerate command creates numbered lists.
3. The description command makes lists of items and their definitions or descriptions.
We can also show the \texttt{description} command, which can be very useful for
glossaries:

\texttt{itemize} creates simple lists.

\texttt{enumerate} creates numbered lists.

\texttt{description} makes lists of terms and their definitions or descriptions. The
terms are automatically set in boldface and the descriptions are indented
somewhat.

\section{The Surprising Conclusion}

Of course, one of our main goals is to write up mathematical formulas. One way
of using mathematical symbols and formulas is a part of running text. We might,
for instance, simply want to say that $\pi \approx 3.14159265$, or that $\sqrt{x^2 + 2x + 1} =
x + 1$ or that $\sum_{i=1}^{\infty} i = \frac{n(n + 1)}{2}$. The simplest way of marking off the formulas is
to use a dollar sign. In some cases, \LaTeX{} will have to squash the formulas so
that they don’t disrupt the paragraph too much. This is called \textit{text mode}, since
the mathematics is treated as part of the text.

We can also request that mathematical text be set off from the regular text.
This is called \textit{math mode}. It can be invoked using double dollar signs, or else
the \texttt{displaymath} command. Thus, we may refer to the following well-known
approximation:

\[ \pi \approx 3.14159265 \]

and to the fact that

\[ \sqrt{x^2 + 2x + 1} = x + 1 \]

and we notice that the following formula is printed differently:

\[ \sum_{i=1}^{\infty} i = \frac{n(n + 1)}{2} \]

If you want a formula to be numbered, you must use the \texttt{equation}
environment for it:

\[ \int_a^b x \, dx = \frac{(b^2 - a^2)}{2} \]

(1)