

This is my *first* document prepared in L^AT_EX. I typed it on May 18, 2016.

We have seen that to typeset something in L^AT_EX, we type in the text to be typeset together with some L^AT_EX commands. Words must be separated by spaces (does not matter how many) and lines maybe broken arbitrarily.

The end of a paragraph is specified by a *blank line* in the input. In other words, whenever you want to start a new paragraph, just leave a blank line and proceed.

The numbers 1, 2, 3, etc. are called natural numbers. According to Kronecker, they were made by God; all else being the works of Man.

”Note” the difference in right and left quotes in ‘single quotes’ and “double quotes”.

X-rays are discussed in pages 221–225 of Volume 3—the volume on electromagnetic waves.

Maybe I have now learnt about 1% of L^AT_EX.

This is the first line.

This is the second line

The T_EXnical Institute

Certificate

This is to certify that Mr. N. O. Vice has undergone a course at this institute and is qualified to be a T_EXnician.

The Director
The T_EXnical Institute

FONTS

A polygon of three sides is called a triangle and a polygon of four sides is called a quadrilateral

A polygon of three sides is called a *triangle* and a polygon of four sides is called a *quadrilateral*

A is **A**, B is B

Split Line

The T_EXnical Institute

CERTIFICATE

This is to certify that Mr. N. O. Vice has undergone a course at this institute and is qualified to be a T_EXnical Expert.

The Director
The T_EXnical Institute

1 Dividing the document

1.1 Example

In this example, we show how subsections and subsubsections are produced (there are no subsubsubsections). Note how the subsections are numbered.

1.1.1 Subexample

Did you note that subsubsections are not numbered? This is so in the `book` and `report` classes. In the `article` class they too have numbers. (Can you figure out why?)

Note Paragraphs and subparagraphs do not have numbers. And they have *run-in* headings. Though named paragraph we can have several paragraphs of text within this.

Subnote 1 Subparagraphs have an additional indentation too.

Subnote 2 Subparagraphs have an additional indentation too.

Subnote 3 Subparagraphs have an additional indentation too.

2 Example 2

2.1 Example

In this example, we show how subsections and subsubsections are produced (there are no subsubsubsections). Note how the subsections are numbered.

2.1.1 Subexample

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Subnote 1 Subparagraphs have an additional indentation too.

Subnote 2 Subparagraphs have an additional indentation too.

Subnote 3 Subparagraphs have an additional indentation too

3 Tutorial III

3.1 Bibliography(Literaturverzeichnis)

It is hard to write unstructured and disorganised documents using L^AT_EX[1].It is interesting to typeset one equation[1, Sec 3.3] rather than setting ten pages of running matter[2, 3].

If the author name is Alex and year 1991, the key can be coded as **ale91** or some such mnemonic string.

References

- [1] Leslie Lamport, 1985. *L^AT_EX—A Document Preparation System—Users Guide and Reference Manual*, Addison-Wesley, Reading.
- [2] Donald E. Knuth, 1989. *Typesetting Concrete Mathematics*, TUGBoat, 10(1):31-36.
- [3] Ronald L. Graham, Donald E. Knuth, and Ore Patashnik, 1989. *Concrete Mathematics: A Foundation for Computer Science*, Addison-Wesley, Reading.

4 Tutorial IV

4.1 Table of contents, index and glossary

4.Tutorial IV	3
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5 Tutorial V

5.1 Displayed Text

5.1.1 Borrowed words

Some mathematicians elevate the spirit of Mathematics to a kind of intellectual aesthetics. It is best voiced by Bertrand Russell in the following lines.

The true spirit offrom which all great work
springs.

To show it more clearly.

5.1.2 Marking Lists

One should keep the following in mind when using T_EX

- First main item with Black triangle right

- ☛ The ding 42 in the first level
- ☛ The ding 42 in the first level
 - ☞ The ding43 in the second level
 - ☞ the ding43 in the second level
 - ☞ The ding45 item in the third level
 - ☞ The ding45 item in the third level
- Second main item with Black triangle right

Being a program, \TeX offers a high degree of flexibility.

Such a numbered list is produced by the enumerate environment in \LaTeX . The above list was produced by the following source.

1. prepare a source file with the extension "tex"
2. Compile it with \LaTeX to produce a "dvi" file
3. Print the document using a "dvi" driver

The three basic steps in producing a printed document using \LaTeX are as follows:

1. First Item
2. Second Item
 - (a) Use a previewer
 - (b) Edit the source if needed
 - (c) Recompile
3. Third Item

5.1.3 Descriptions and Definitions

There is an example for the definitions layout.

\TeX A typesetting program

Emacs A text editor and also

AbiWord A word processor

l

The real number l is the least upper bound of the set A if it satisfies the following conditions

- (1) l is an upper bound of A

(2) if u is an upper bound of A , then $l \leq u$

The second condition is equivalent to

(2)' If $a < l$, then a is not an upper bound of A .

Lets review the notation

- $(0, 1)$ is an *open* interval
- $[0, 1]$ is a *closed* interval

5.1.4 Rows and Columns