

[Previous](#) - [Up](#) - [Next](#)

## Tartalomjegyzék

- [1 Latex](#)
  - ◆ [1.1 Install](#)
  - ◆ [1.2 First LaTeX file](#)
    - ◇ [1.2.1 TexMaker](#)
  - ◆ [1.3 LaTeX practice](#)
  - ◆ [1.4 Help yourself](#)

## Latex

### Install

- Windows
  - ◆ First install [MikTeX](#)
  - ◆ Then install [TeXMaker](#)
- Mac
  - ◆ First install [MacTeX](#)
  - ◆ Then install [TeXMaker](#)
- Linux

```
sudo apt-get install texlive
```

- ◆ Then install [TeXMaker](#)

### First LaTeX file

- Copy the following code into an empty file! Save it as **template1.tex**! It's important to have the file in **utf-8** encoding, since we specify that it in the `\usepackage[utf8]{inputenc}` line.

```
\documentclass{article}

\usepackage[T1]{fontenc}      % internal encoding
\usepackage[utf8]{inputenc}  % input encoding
\usepackage[english]{babel}  % language
\usepackage{lmodern}         % font, even if you use the default one

\usepackage{amsmath, amssymb} % math packages
\usepackage{amsthm}           % theorem-like environments
\usepackage{graphicx}         % for embedding pictures

\title{}
\author{}
\date{}                      % this can be left empty

\begin{document}
```

```
\maketitle
\tableofcontents
\section{}
\subsection{}
\end{document}
```

- Duplicate the **template1.tex** into another file named **latex1.tex** and in this new one fill the empty blocks (Lorem Ipsum, if you have no inspiration), compile the code, and then view it with the following command:

```
pdflatex latex1
xpdf latex1.pdf &
```

## TexMaker

- We highly recommend using a latex editor from now on. TexMaker is a platform independent editor, you can compile the edited file with the F1 button.
- If everything went smoothly up until this point, then put a few errors in the code and then try to compile it again. (You'll see red error messages at the bottom of TexMaker.)
- Try to write a few formulas, you can use the help here, it's in hungarian, but the formulas are universal.
- Reproduce your current or last week's homework in latex.

## LaTeX practice

- Try the different font styles (texttt, textsf, uppercase, textbf, textit, emph, textsl, etc.)! Change the size of the text: tiny, normalsize, large etc.!
- Create lists (enumerate, itemize, description, nested)! Change the numbering of enumerate to roman numerals!
- Create a table with the tabular environment. Try to align the text left/right/center! Use the \hline and \vline commands!
- Math environments:
  - ◆ Try inline and display style environments as well
  - ◆ Fractions, roots, superscripts, subscripts (\left és \right)
  - ◆ Equations (equation, eqnarray, align)
  - ◆ Theorem, definition, lemma (numbering, reference)
- References

## Help yourself

- <https://tex.stackexchange.com/>
- Hungarian demo 1
- Hungarian demo 2 (you have to compile it yourself)
- Differential d symbol:

```
\def\dd{\,\mathrm{d}}
```

[Previous](#) - [Up](#) - [Next](#)