

# Tartalomjegyzék

- [1 Introduction to Latex](#)
  - ◆ [1.1 First LaTeX file](#)
  - ◆ [1.2 TexMaker](#)
- [2 LaTeX practice](#)
- [3 Help yourself](#)

## Introduction to Latex

### 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 in the `\usepackage[utf8]{inputenc}` line.

```
\documentclass{article}

\usepackage[T1]{fontenc}           % internal encoding
\usepackage[utf8]{inputenc}         % input encoding
\usepackage[english]{babel}        % language
\usepackage{lmodern}

\usepackage{amsmath, amssymb}      % math packages
\usepackage{graphicx}              % for embedding pictures

\title{}                          % title
\author{}                         % author
\date{}                           % 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, bibliography

## Help yourself

- <https://tex.stackexchange.com/>