

🔍 Search help library...

# Documentation

---

Welcome to the Overleaf knowledge base. A complete list of topics is provided on the left hand-side, but here is a selection of useful articles:

## New to LaTeX?

Start with our [Learn  \$\text{L}^{\text{A}}\text{T}\_{\text{E}}\text{X}\$  in 30 minutes \(/learn/latex/Learn\\_LaTeX\\_in\\_30\\_minutes\)](/learn/latex/Learn_LaTeX_in_30_minutes) guide.

For more specific introductions, have a look at:

- [Create your first document in  \$\text{L}^{\text{A}}\text{T}\_{\text{E}}\text{X}\$  \(/learn/latex/Creating\\_a\\_document\\_in\\_LaTeX\)](/learn/latex/Creating_a_document_in_LaTeX)
- [Paragraphs and new lines \(/learn/latex/Paragraphs\\_and\\_new\\_lines\)](/learn/latex/Paragraphs_and_new_lines)
- [Bold, italics and underlining \(/learn/latex/Bold%2C\\_italics\\_and\\_underlining\)](/learn/latex/Bold%2C_italics_and_underlining)
- [Lists \(/learn/latex/Lists\)](/learn/latex/Lists)
- [Mathematics \(/learn/latex/Mathematical\\_expressions\)](/learn/latex/Mathematical_expressions)
- [Bibliographies and references \(/learn/latex/Bibliography\\_management\\_in\\_LaTeX\)](/learn/latex/Bibliography_management_in_LaTeX)
- [Images \(/learn/latex/Inserting\\_Images\)](/learn/latex/Inserting_Images)
- [Tables \(/learn/latex/Tables\)](/learn/latex/Tables)

## Overleaf guides

- [Create your first Overleaf document \(/learn/how-to/Creating\\_a\\_document\\_in\\_Overleaf\)](/learn/how-to/Creating_a_document_in_Overleaf)
- [Uploading a project to Overleaf \(/learn/how-to/Uploading\\_a\\_project\)](/learn/how-to/Uploading_a_project)
- [Copying a project \(/learn/how-to/Copying\\_a\\_project\)](/learn/how-to/Copying_a_project)
- [Creating a project from a template \(/learn/how-to/Creating\\_a\\_project\\_from\\_a\\_template\)](/learn/how-to/Creating_a_project_from_a_template)
- [Using the Overleaf project menu \(/learn/how-to/Using\\_the\\_Overleaf\\_project\\_menu\)](/learn/how-to/Using_the_Overleaf_project_menu)
- [Including images on Overleaf \(/learn/how-to/Including\\_images\\_on\\_Overleaf\)](/learn/how-to/Including_images_on_Overleaf)
- [Exporting your work from Overleaf \(/learn/how-to/Exporting\\_your\\_work\\_from\\_Overleaf\)](/learn/how-to/Exporting_your_work_from_Overleaf)

- [Using bibliographies on Overleaf \(/learn/how-to/Using\\_bibliographies\\_on\\_Overleaf\)](/learn/how-to/Using_bibliographies_on_Overleaf)
- [Sharing your work with others \(/learn/how-to/Sharing\\_your\\_work\\_with\\_others\)](/learn/how-to/Sharing_your_work_with_others)
- [Debugging Compilation timeout errors \(/learn/how-to/Debugging\\_Compilation\\_timeout\\_errors\)](/learn/how-to/Debugging_Compilation_timeout_errors)
- [Code Check \(/learn/how-to/Code\\_Check\)](/learn/how-to/Code_Check)

## Languages

[Overleaf and L<sup>A</sup>T<sub>E</sub>X have support for a large selection of languages \(/learn/latex/International\\_language\\_support\)](/learn/latex/International_language_support). These include [Arabic \(/learn/latex/Arabic\)](/learn/latex/Arabic), [Chinese \(/learn/latex/Chinese\)](/learn/latex/Chinese), [French \(/learn/latex/French\)](/learn/latex/French), [German \(/learn/latex/German\)](/learn/latex/German), [Greek \(/learn/latex/Greek\)](/learn/latex/Greek), [Italian \(/learn/latex/Italian\)](/learn/latex/Italian), [Japanese \(/learn/latex/Japanese\)](/learn/latex/Japanese), [Korean \(/learn/latex/Korean\)](/learn/latex/Korean), [Portuguese \(/learn/latex/Portuguese\)](/learn/latex/Portuguese), [Russian \(/learn/latex/Russian\)](/learn/latex/Russian), and [Spanish \(/learn/latex/Spanish\)](/learn/latex/Spanish).

Multilingual typesetting is discussed, with examples, in the article [Multilingual typesetting on Overleaf using polyglossia and fontspec \(/learn/latex/Multilingual\\_typesetting\\_on\\_Overleaf\\_using\\_polyglossia\\_and\\_fontspec\)](/learn/latex/Multilingual_typesetting_on_Overleaf_using_polyglossia_and_fontspec).

## Advanced TeX/LaTeX

Overleaf has published a wide range of in-depth technical articles (</learn/latex/Articles>) for readers interested in the low-level behaviour of TeX engines.

[Documentation Home \(/learn\)](/learn)

[Learn LaTeX in 30 minutes \(/learn/latex/Learn\\_LaTeX\\_in\\_30\\_minutes\)](/learn/latex/Learn_LaTeX_in_30_minutes)

### Overleaf guides

[Creating a document in Overleaf \(/learn/how-to/Creating\\_a\\_document\\_in\\_Overleaf\)](/learn/how-to/Creating_a_document_in_Overleaf)

[Uploading a project \(/learn/how-to/Uploading\\_a\\_project\)](/learn/how-to/Uploading_a_project)

[Copying a project \(/learn/how-to/Copying\\_a\\_project\)](/learn/how-to/Copying_a_project)

[Creating a project from a template \(/learn/how-to/Creating\\_a\\_project\\_from\\_a\\_template\)](/learn/how-to/Creating_a_project_from_a_template)

[Using the Overleaf project menu \(/learn/how-to/Using\\_the\\_Overleaf\\_project\\_menu\)](/learn/how-to/Using_the_Overleaf_project_menu)

[Including images in Overleaf \(/learn/how-to/Including\\_images\\_on\\_Overleaf\)](/learn/how-to/Including_images_on_Overleaf)

[Exporting your work from Overleaf \(/learn/how-to/Exporting\\_your\\_work\\_from\\_Overleaf\)](/learn/how-to/Exporting_your_work_from_Overleaf)

[Working offline in Overleaf \(/learn/how-to/Working\\_Offline\\_in\\_Overleaf\)](/learn/how-to/Working_Offline_in_Overleaf)

[Using Track Changes in Overleaf \(/learn/how-to/Track\\_Changes\\_in\\_Overleaf\)](/learn/how-to/Track_Changes_in_Overleaf)

[Using bibliographies in Overleaf \(/learn/how-to/Using\\_bibliographies\\_on\\_Overleaf\)](/learn/how-to/Using_bibliographies_on_Overleaf)

[Sharing your work with others \(/learn/how-to/Sharing\\_a\\_project\)](/learn/how-to/Sharing_a_project)

[Using the History feature \(/learn/latex/Using\\_the\\_History\\_feature\)](/learn/latex/Using_the_History_feature)

[Debugging Compilation timeout errors \(/learn/how-to/Why\\_do\\_I\\_keep\\_getting\\_the\\_compile\\_timeout\\_error\\_message%3F\)](/learn/how-to/Why_do_I_keep_getting_the_compile_timeout_error_message%3F)

[How-to guides \(/learn/how-to\)](/learn/how-to)

[Guide to Overleaf's premium features \(/learn/how-to/Overleaf\\_premium\\_features\)](/learn/how-to/Overleaf_premium_features)

## LaTeX Basics

[Creating your first LaTeX document \(/learn/latex/Creating\\_a\\_document\\_in\\_LaTeX\)](/learn/latex/Creating_a_document_in_LaTeX)

[Choosing a LaTeX Compiler \(/learn/latex/Choosing\\_a\\_LaTeX\\_Compiler\)](/learn/latex/Choosing_a_LaTeX_Compiler)

[Paragraphs and new lines \(/learn/latex/Paragraphs\\_and\\_new\\_lines\)](/learn/latex/Paragraphs_and_new_lines)

[Bold, italics and underlining \(/learn/latex/Bold%2C\\_italics\\_and\\_underlining\)](/learn/latex/Bold%2C_italics_and_underlining)

[Lists \(/learn/latex/Lists\)](/learn/latex/Lists)

[Errors \(/learn/latex/Errors\)](/learn/latex/Errors)

## Mathematics

[Mathematical expressions \(/learn/latex/Mathematical\\_expressions\)](/learn/latex/Mathematical_expressions)

[Subscripts and superscripts \(/learn/latex/Subscripts\\_and\\_superscripts\)](/learn/latex/Subscripts_and_superscripts)

[Brackets and Parentheses \(/learn/latex/Brackets\\_and\\_Parentheses\)](/learn/latex/Brackets_and_Parentheses)

[Matrices \(/learn/latex/Matrices\)](/learn/latex/Matrices)

[Fractions and Binomials \(/learn/latex/Fractions\\_and\\_Binomials\)](/learn/latex/Fractions_and_Binomials)

[Aligning equations \(/learn/latex/Aligning\\_equations\\_with\\_amsmath\)](/learn/latex/Aligning_equations_with_amsmath)

[Operators \(/learn/latex/Operators\)](/learn/latex/Operators)

[Spacing in math mode \(/learn/latex/Spacing\\_in\\_math\\_mode\)](/learn/latex/Spacing_in_math_mode)

[Integrals, sums and limits \(/learn/latex/Integrals%2C\\_sums\\_and\\_limits\)](/learn/latex/Integrals%2C_sums_and_limits)

[Display style in math mode \(/learn/latex/Display\\_style\\_in\\_math\\_mode\)](/learn/latex/Display_style_in_math_mode)

[List of Greek letters and math symbols \(/learn/latex/List\\_of\\_Greek\\_letters\\_and\\_math\\_symbols\)](/learn/latex/List_of_Greek_letters_and_math_symbols)

[Mathematical fonts \(/learn/latex/Mathematical\\_fonts\)](/learn/latex/Mathematical_fonts)

[Using the Symbol Palette in Overleaf \(https://www.overleaf.com/learn/how-to/Using\\_the\\_Symbol\\_Palette\\_in\\_Overleaf\)](https://www.overleaf.com/learn/how-to/Using_the_Symbol_Palette_in_Overleaf)

## Figures and tables

[Inserting Images \(/learn/latex/Inserting\\_Images\)](/learn/latex/Inserting_Images)

[Tables \(/learn/latex/Tables\)](/learn/latex/Tables)

[Positioning Images and Tables \(/learn/latex/Positioning\\_images\\_and\\_tables\)](/learn/latex/Positioning_images_and_tables)

[Lists of Tables and Figures \(/learn/latex/Lists\\_of\\_tables\\_and\\_figures\)](/learn/latex/Lists_of_tables_and_figures)

[Drawing Diagrams Directly in LaTeX \(/learn/latex/Picture\\_environment\)](/learn/latex/Picture_environment)

[TikZ package \(/learn/latex/TikZ\\_package\)](/learn/latex/TikZ_package)

## References and Citations

[Bibliography management with bibtex \(/learn/latex/Bibliography\\_management\\_with\\_bibtex\)](#)  
[Bibliography management with natbib \(/learn/latex/Bibliography\\_management\\_with\\_natbib\)](#)  
[Bibliography management with biblatex \(/learn/latex/Bibliography\\_management\\_with\\_biblatex\)](#)  
[Bibtex bibliography styles \(/learn/latex/Bibtex\\_bibliography\\_styles\)](#)  
[Natbib bibliography styles \(/learn/latex/Natbib\\_bibliography\\_styles\)](#)  
[Natbib citation styles \(/learn/latex/Natbib\\_citation\\_styles\)](#)  
[Biblatex bibliography styles \(/learn/latex/Biblatex\\_bibliography\\_styles\)](#)  
[Biblatex citation styles \(/learn/latex/Biblatex\\_citation\\_styles\)](#)

## Languages

[Multilingual typesetting on Overleaf using polyglossia and fontspec \(/learn/latex/Multilingual\\_typesetting\\_on\\_Overleaf\\_using\\_polyglossia\\_and\\_fontspec\)](#)  
[Multilingual typesetting on Overleaf using babel and fontspec \(/learn/latex/Multilingual\\_typesetting\\_on\\_Overleaf\\_using\\_babel\\_and\\_fontspec\)](#)  
[International language support \(/learn/latex/International\\_language\\_support\)](#)  
[Quotations and quotation marks \(/learn/latex/Typesetting\\_quotations\)](#)  
[Arabic \(/learn/latex/Arabic\)](#)  
[Chinese \(/learn/latex/Chinese\)](#)  
[French \(/learn/latex/French\)](#)  
[German \(/learn/latex/German\)](#)  
[Greek \(/learn/latex/Greek\)](#)  
[Italian \(/learn/latex/Italian\)](#)  
[Japanese \(/learn/latex/Japanese\)](#)  
[Korean \(/learn/latex/Korean\)](#)  
[Portuguese \(/learn/latex/Portuguese\)](#)  
[Russian \(/learn/latex/Russian\)](#)  
[Spanish \(/learn/latex/Spanish\)](#)

## Document structure

[Sections and chapters \(/learn/latex/Sections\\_and\\_chapters\)](#)  
[Table of contents \(/learn/latex/Table\\_of\\_contents\)](#)  
[Cross referencing sections, equations and floats \(/learn/latex/Cross\\_referencing\\_sections%2C\\_equations\\_and\\_floats\)](#)  
[Indices \(/learn/latex/Indices\)](#)  
[Glossaries \(/learn/latex/Glossaries\)](#)  
[Nomenclatures \(/learn/latex/Nomenclatures\)](#)  
[Management in a large project \(/learn/latex/Management\\_in\\_a\\_large\\_project\)](#)

[Multi-file LaTeX projects \(/learn/latex/Multi-file\\_LaTeX\\_projects\)](#)

[Hyperlinks \(/learn/latex/Hyperlinks\)](#)

## Formatting

[Lengths in L<sup>A</sup>T<sub>E</sub>X \(/learn/latex/Lengths\\_in\\_LaTeX\)](#)

[Headers and footers \(/learn/latex/Headers\\_and\\_footers\)](#)

[Page numbering \(/learn/latex/Page\\_numbering\)](#)

[Paragraph formatting \(/learn/latex/Paragraph\\_formatting\)](#)

[Line breaks and blank spaces \(/learn/latex/Line\\_breaks\\_and\\_blank\\_spaces\)](#)

[Text alignment \(/learn/latex/Text\\_alignment\)](#)

[Page size and margins \(/learn/latex/Page\\_size\\_and\\_margins\)](#)

[Single sided and double sided documents \(/learn/latex/Single\\_sided\\_and\\_double\\_sided\\_documents\)](#)

[Multiple columns \(/learn/latex/Multiple\\_columns\)](#)

[Counters \(/learn/latex/Counters\)](#)

[Code listing \(/learn/latex/Code\\_listing\)](#)

[Code Highlighting with minted \(/learn/latex/Code\\_Highlighting\\_with\\_minted\)](#)

[Using colours in LaTeX \(/learn/latex/Using\\_colours\\_in\\_LaTeX\)](#)

[Footnotes \(/learn/latex/Footnotes\)](#)

[Margin notes \(/learn/latex/Margin\\_notes\)](#)

## Fonts

[Font sizes, families, and styles \(/learn/latex/Font\\_sizes%2C\\_families%2C\\_and\\_styles\)](#)

[Font typefaces \(/learn/latex/Font\\_typefaces\)](#)

[Supporting modern fonts with X<sub>Y</sub>L<sup>A</sup>T<sub>E</sub>X \(/learn/latex/XeLaTeX\)](#)

## Presentations

[Beamer \(/learn/latex/Beamer\)](#)

[Powerdot \(/learn/latex/Powerdot\)](#)

[Posters \(/learn/latex/Posters\)](#)

## Commands

[Commands \(/learn/latex/Commands\)](#)

[Environments \(/learn/latex/Environments\)](#)

## Field specific

[Theorems and proofs \(/learn/latex/Theorems\\_and\\_proofs\)](#)

[Chemistry formulae \(/learn/latex/Chemistry\\_formulae\)](#)

[Feynman diagrams \(/learn/latex/Feynman\\_diagrams\)](/learn/latex/Feynman_diagrams)

[Molecular orbital diagrams \(/learn/latex/Molecular\\_orbital\\_diagrams\)](/learn/latex/Molecular_orbital_diagrams)

[Chess notation \(/learn/latex/Chess\\_notation\)](/learn/latex/Chess_notation)

[Knitting patterns \(/learn/latex/Knitting\\_patterns\)](/learn/latex/Knitting_patterns)

[CircuiTikz package \(/learn/latex/CircuiTikz\\_package\)](/learn/latex/CircuiTikz_package)

[Pgfplots package \(/learn/latex/Pgfplots\\_package\)](/learn/latex/Pgfplots_package)

[Typesetting exams in LaTeX \(/learn/latex/Typesetting\\_exams\\_in\\_LaTeX\)](/learn/latex/Typesetting_exams_in_LaTeX)

[Knitr \(/learn/latex/Knitr\)](/learn/latex/Knitr)

[Attribute Value Matrices \(/learn/latex/Attribute\\_Value\\_Matrices\)](/learn/latex/Attribute_Value_Matrices)

## Class files

[Understanding packages and class files \(/learn/latex/Understanding\\_packages\\_and\\_class\\_files\)](/learn/latex/Understanding_packages_and_class_files)

[List of packages and class files \(/learn/latex/List\\_of\\_packages\\_and\\_class\\_files\)](/learn/latex/List_of_packages_and_class_files)

[Writing your own package \(/learn/latex/Writing\\_your\\_own\\_package\)](/learn/latex/Writing_your_own_package)

[Writing your own class \(/learn/latex/Writing\\_your\\_own\\_class\)](/learn/latex/Writing_your_own_class)

## Advanced TeX/LaTeX

[In-depth technical articles on TeX/LaTeX \(/learn/latex/Articles\)](/learn/latex/Articles)