Pdf generation

The solution to

$$ax^2 + bx + c = 0$$

is $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$.

Front matter

Take a look at the source code for this page (`src/content/02-markdown/02-generating-pdf.md`) and see the starting block being fenced by `---` dashes. This is the front matter commonly used in many Markdown-based applications.

The `pdf` field is set to `true` in this case, which instructs Mathlified to generate a PDF into the `output` directory of the project root.

Prerequisite

To make use of this feature, LaTeX, `djot` and `pandoc` will need to be installed locally on your machine.

Triggering PDF generation

PDF generation is triggered while in `dev` mode and on file change.

To see it in action, make sure your dev server is running (with `pnpm run dev` or equivalent). Make some changes to this file. Upon saving, you should see a success/failure message printed on the terminal. Give it a try!

> The pdf generation feature of Mathlified only runs on file changes during `dev` mode.

Exercise

Explore creating more pdfs, either by creating a new file or by adding frontmatter to some of the earlier files. Do take note of the caveats mentioned below though.

Pdf generation caveats

Amsmath environment

As discussed in the previous section, there is a difference in how these environments are handled in LaTeX vs on the web. Hence, the use of these environments is **not supported** when working in Markdown to generate pdfs.

We will later show how to work around this issue using custom extensions.

The `\LaTeX` command

Similarly, the `\LaTeX` command is invoked within math mode on the web but outside of it in LaTeX and is thus not supported for cross-platform compatibility.

More about Mathlified: page titles

By default, Mathlified uses the file name to generate the page title. You can see this behavior for all previous files/pages in this tutorial.

To override this behavior, we can set the `title` field in the front matter, like we did in this file/page.