

1 Markdown to LaTeX Comprehensive Guide

This guide demonstrates all supported markdown syntax features for the md-to-luatex converter.

1.1 Headings

% % % %

2 Heading 1

2.1 Heading 2

2.1.1 Heading 3

Heading 4

Heading 5

Heading 6

2.2 Text Formatting

2.2.1 Bold

bold text or bold text

2.2.2 Italic

italic text or italic text

2.2.3 Bold + Italic

bold and italic or bold and italic

2.2.4 Strikethrough

strikethrough text

2.2.5 Highlight

highlighted text

2.2.6 Superscript

superscript (e.g., x^2)

2.2.7 Subscript

subscript (e.g., H_2O)

2.3 Inline Code

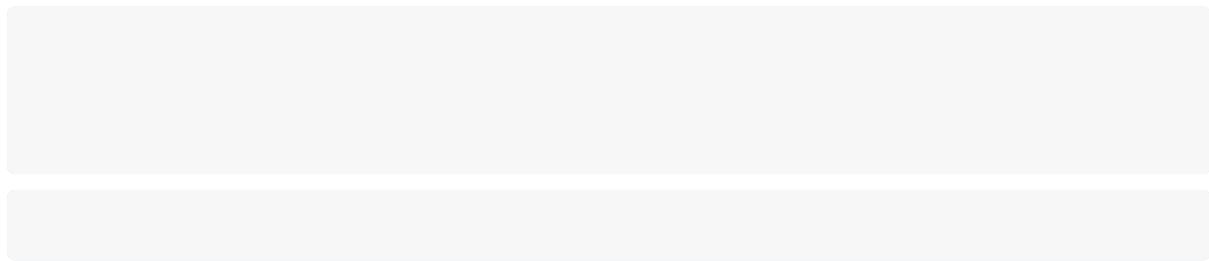
■

2.4 Code Blocks

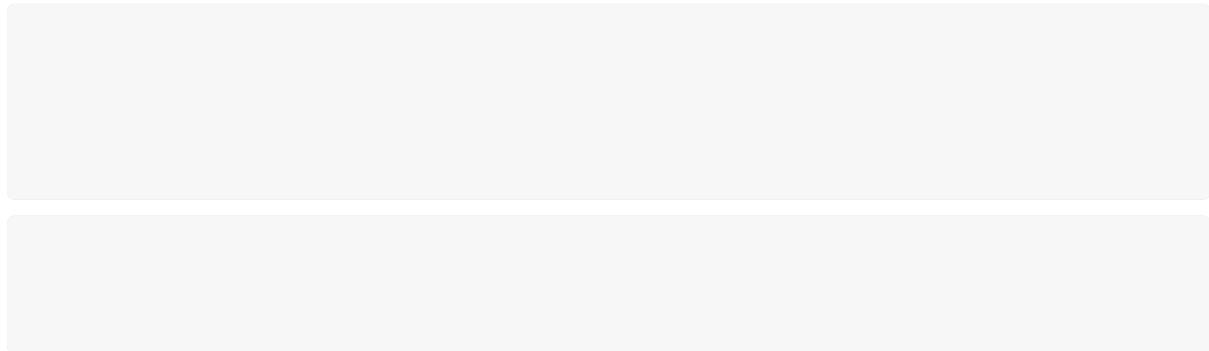
2.4.1 Fenced Code Block

■

2.4.2 Code Block Without Language



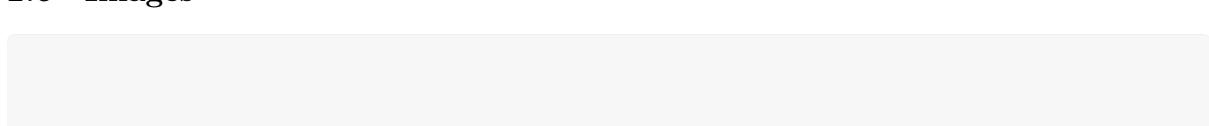
2.4.3 Terminal Block

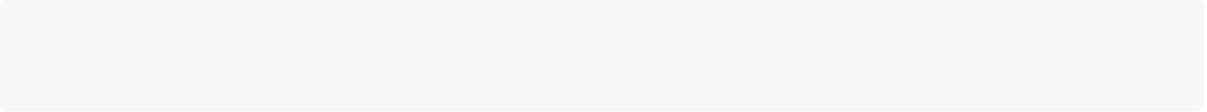


2.5 Links

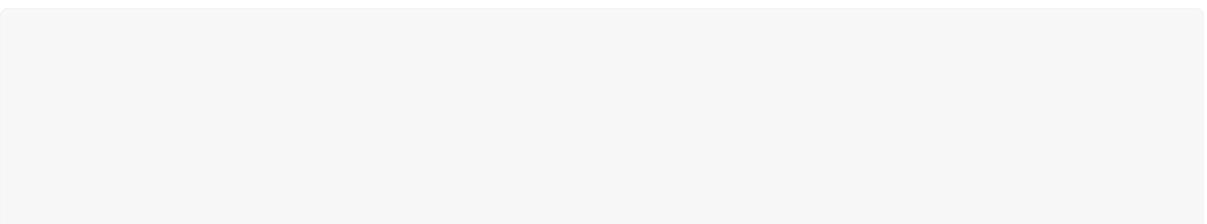


2.6 Images





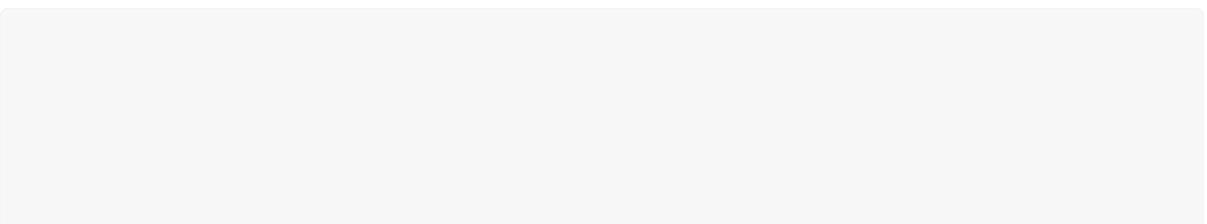
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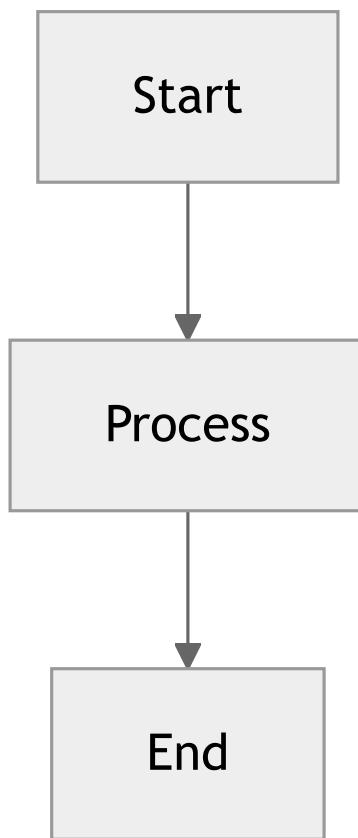


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Figure 1: title

2.7 Mermaid Diagrams



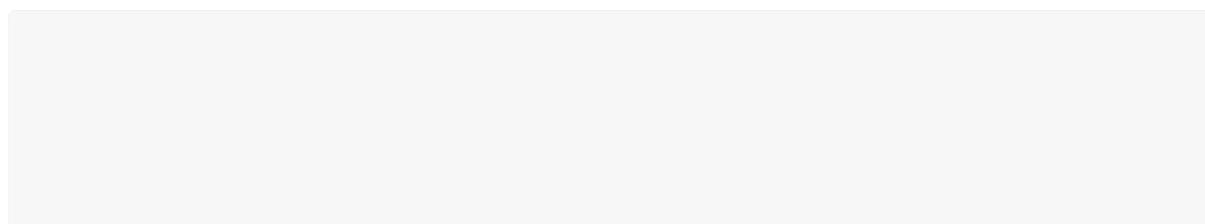


2.8 Lists

2.8.1 Unordered List

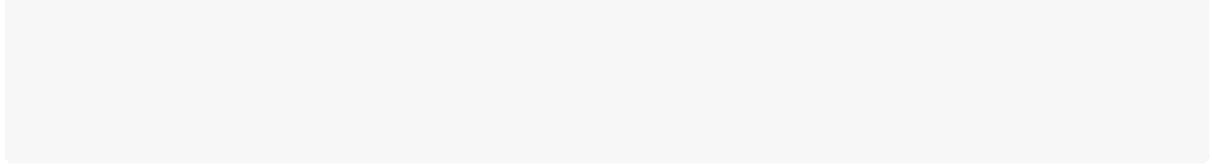
- Item 1
- Item 2
 - Nested item 2.1
 - Nested item 2.2
- Item 3

2.8.2 Ordered List

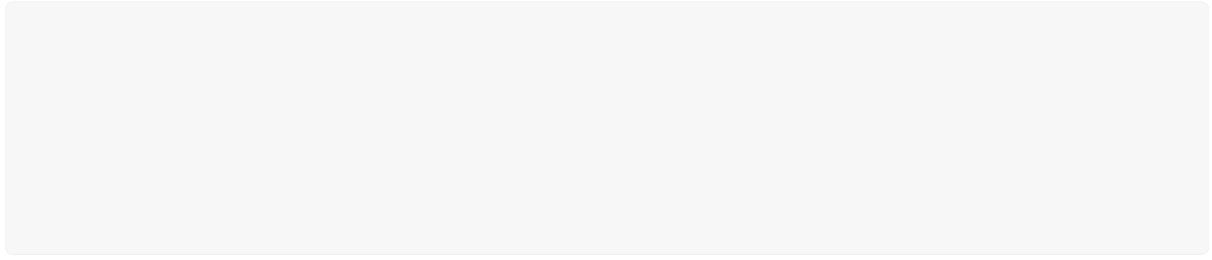


1. First item
2. Second item
 1. Nested item 2.1
 2. Nested item 2.2
3. Third item

2.8.3 Task Lists

- 
- Completed task
 - Incomplete task
 - Partially completed task

2.9 Definition Lists

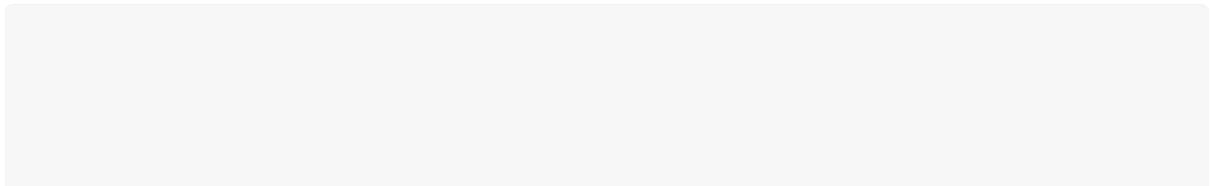


Term 1
Definition 1

Term 2
Definition 2a
Definition 2b

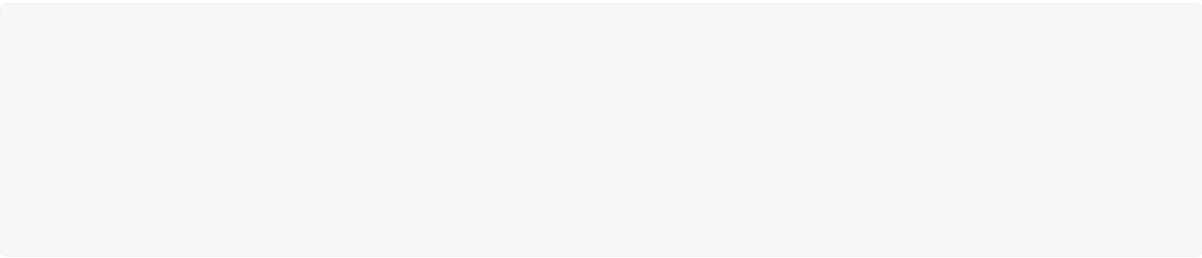
2.10 Tables

2.10.1 Pipe Tables



Left	Center	Right	Default
L1	C1	R1	Default
L2	C2	R2	Default

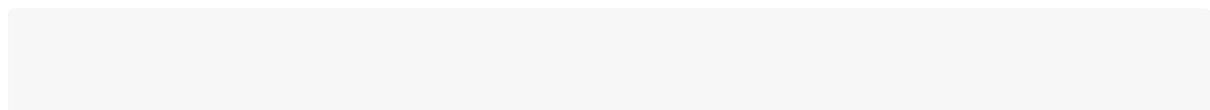
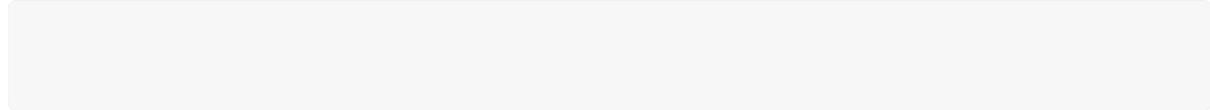
2.11 Table with Captions



Header 1	Header 2	Header 3
Cell 1	Cell 2	Cell 3
Cell 4	Cell 5	Cell 6

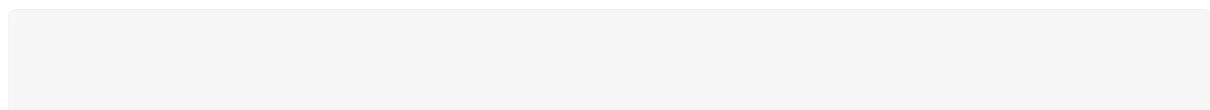
Table 1: Sample Table with Caption

2.12 Horizontal Rule



2.13 Math Expressions

2.13.1 Inline Math



This is inline math: $E = mc^2$

2.13.2 Display Math

$$\int_0^{\infty} e^{-x^2} dx = \frac{\sqrt{\pi}}{2}$$

2.14 Footnotes

2.14.1 Inline Footnote

Text with inline footnote^[1] .

2.14.2 Reference Footnote

Text with reference footnote^[2] .

2.15 Keyboard Shortcuts

2.15.1 Single Key



2.15.2 Key Combination with Plus



2.15.3 Key Combination with Minus

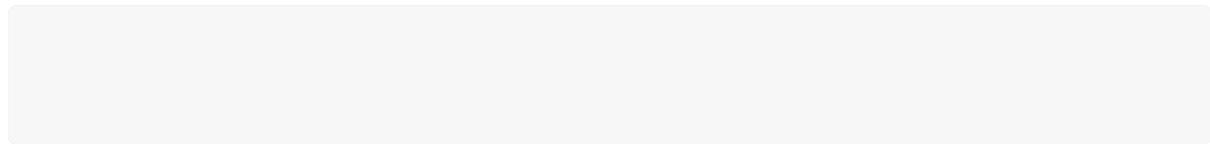


-
- [1] This is the footnote content
 - [2] This is the footnote content.

2.16 Line Break

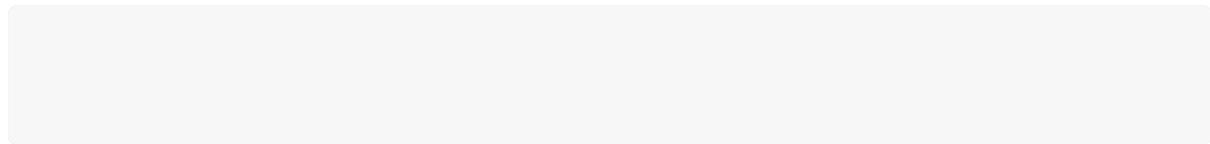
2.16.1 Using Two Spaces

Put two spaces at the end of a line 1 to create a line break.



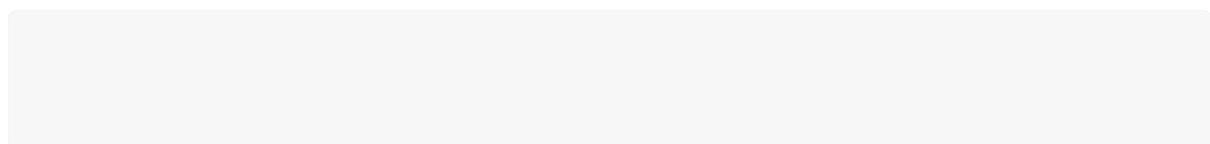
Line 1
Line 2

2.16.2 Using Backslash

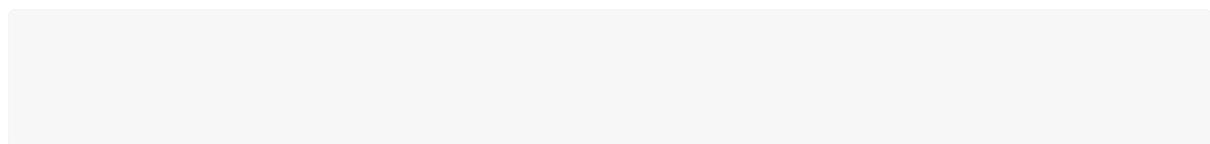


Line 1
Line 2

2.16.3 Using HTML `
` Tag

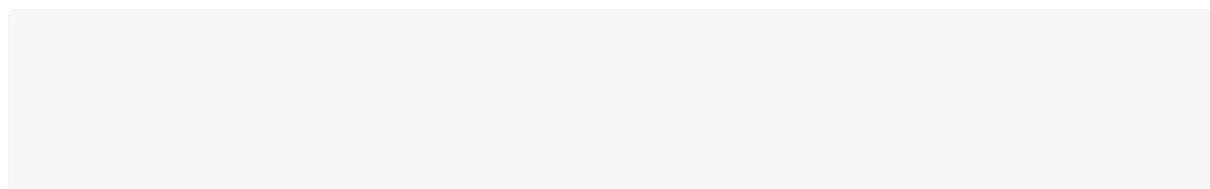


Line 1
Line 2



Line 1
Line 2

2.16.4 Using Empty Line (Paragraph Break)



Line 1
Line 2

2.17 Blockquotes

This is a blockquote. It can span multiple lines.
And multiple paragraphs.

2.17.1 Nested Blockquotes

Level 1
| Level 2
| | Level 3

2.17.2 Blockquotes with Styled Content

Blockquotes can contain inline code, keyboard shortcuts, tables, and other formatted elements:

This blockquote contains and keyboard shortcuts like `○ + ○`.
It can also have **bold**, *italic*, and `highlighted` text.

Feature	Supported
Tables	Yes
Code	Yes

2.17.3 Blockquotes with Code Blocks

Here's a code example inside a blockquote:

The code block maintains its syntax highlighting.

2.18 GitHub Alerts

2.18.1 Note Alert

NOTE

This is a note alert with blue styling.

2.18.2 Tip Alert

TIP

This is a tip alert with green styling.

2.18.3 Important Alert

IMPORTANT

This is an important alert with purple styling.

2.18.4 Warning Alert

WARNING

This is a warning alert with yellow/orange styling.

2.18.5 Caution Alert

CAUTION

This is a caution alert with red styling.

2.18.6 Alerts with Rich Content

GitHub alerts can also contain formatted text, code, tables, and keyboard shortcuts:

TIP

Pro Tip: Use `Shift + S` to commit changes.

Common keyboard shortcuts:

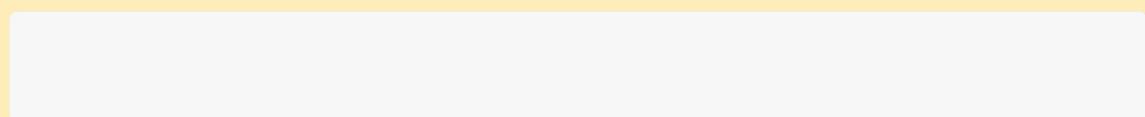
- Save: `Shift + S`
- Undo: `Shift + Z`

Command	Description
<code>Shift + S</code>	Check repository status
<code>Shift + S</code>	View commit history

WARNING

This contains `highlighted text`, `strikethrough`, and `superscript`!

Code example:



Never run the above command!

2.19 Executable Python Code Blocks

The converter supports executing Python code blocks directly within your markdown and including their output or generated plots in the final PDF.

2.19.1 Prerequisites

For Python code execution to work, you need Python installed on your system. To generate plots with matplotlib, install the required packages:

NOTE

Mermaid diagram support is already documented in the Mermaid Diagrams section and requires separate installation of `graphviz` via npm.

2.19.2 Basic Syntax

Mark a Python code block for execution using properties in curly braces:

2.19.3 Available Properties

- `execute` - Execute the code block (required)
- `source` - Display the source code in the output
- `output` - Display execution output/plot (enabled by default)
- `hide_code` - Explicitly hide the source code (default)
- `hide_output` - Hide execution output/plot

2.19.4 Simple Print Example

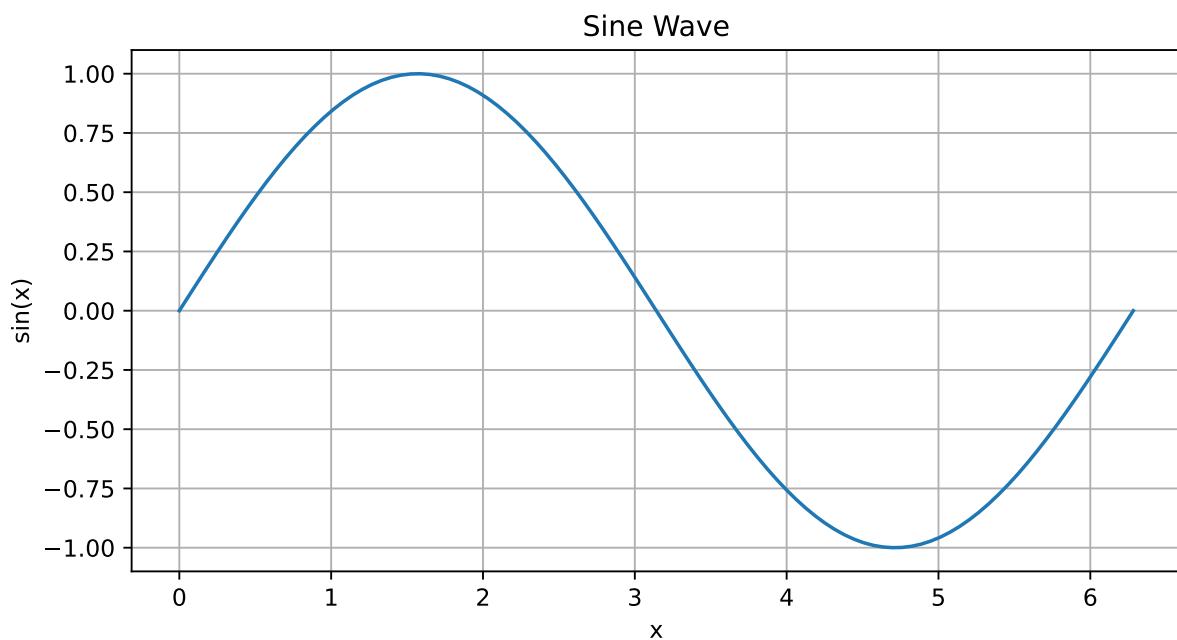
Output only (default):

Show both code and output:

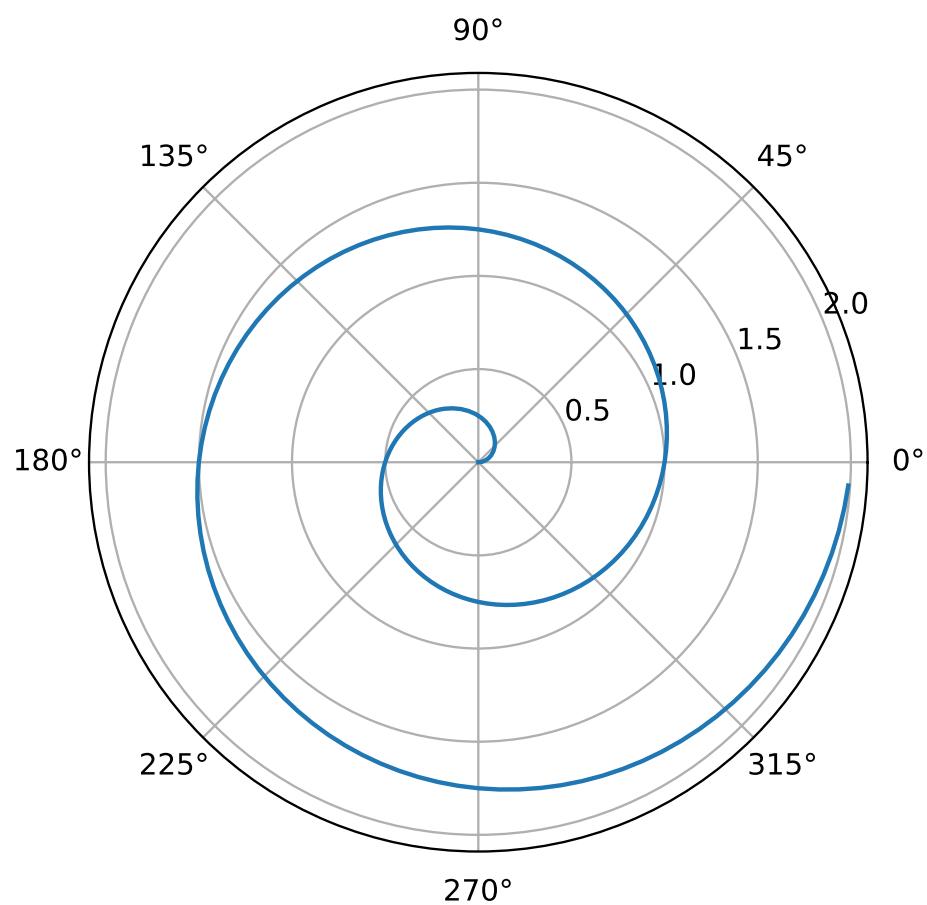
2.19.5 Matplotlib Plots

When your code uses matplotlib, the plot is automatically saved as a PDF and embedded in the document.

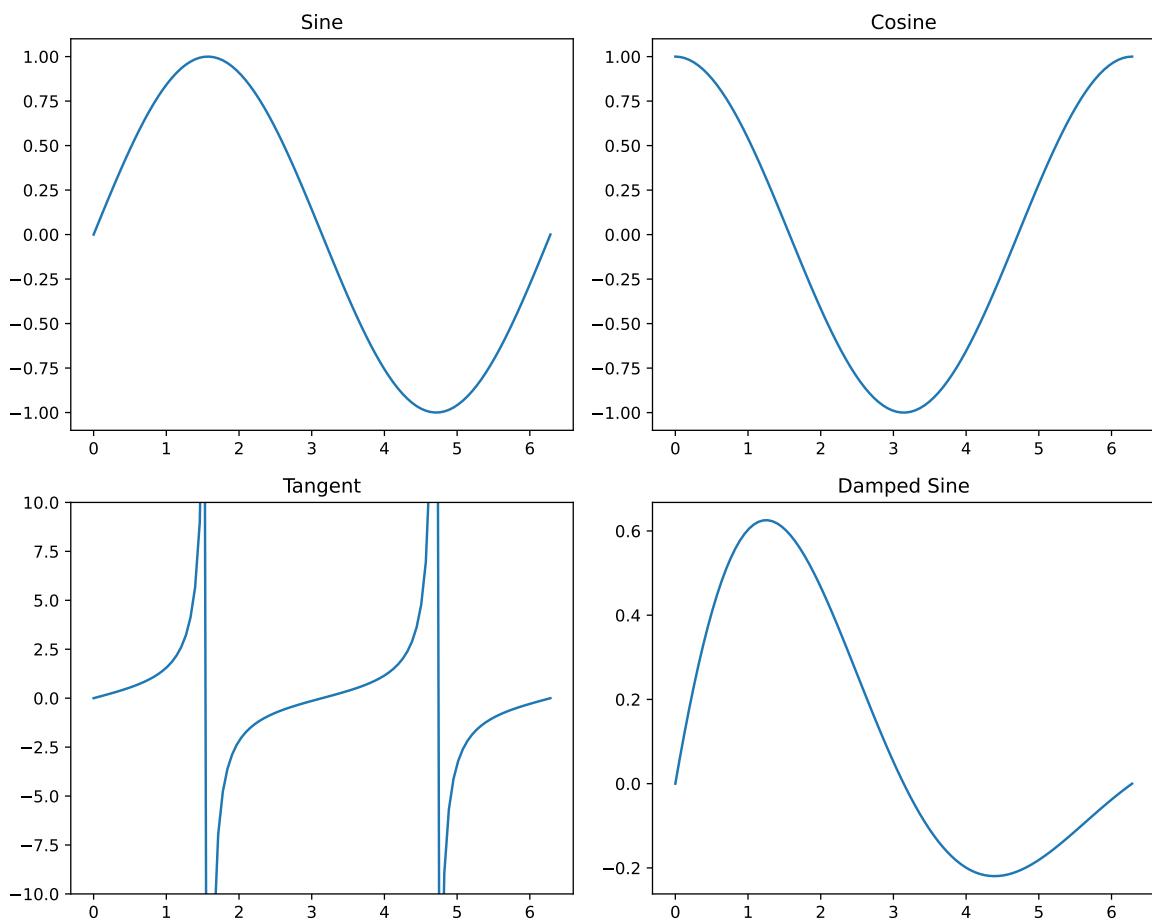
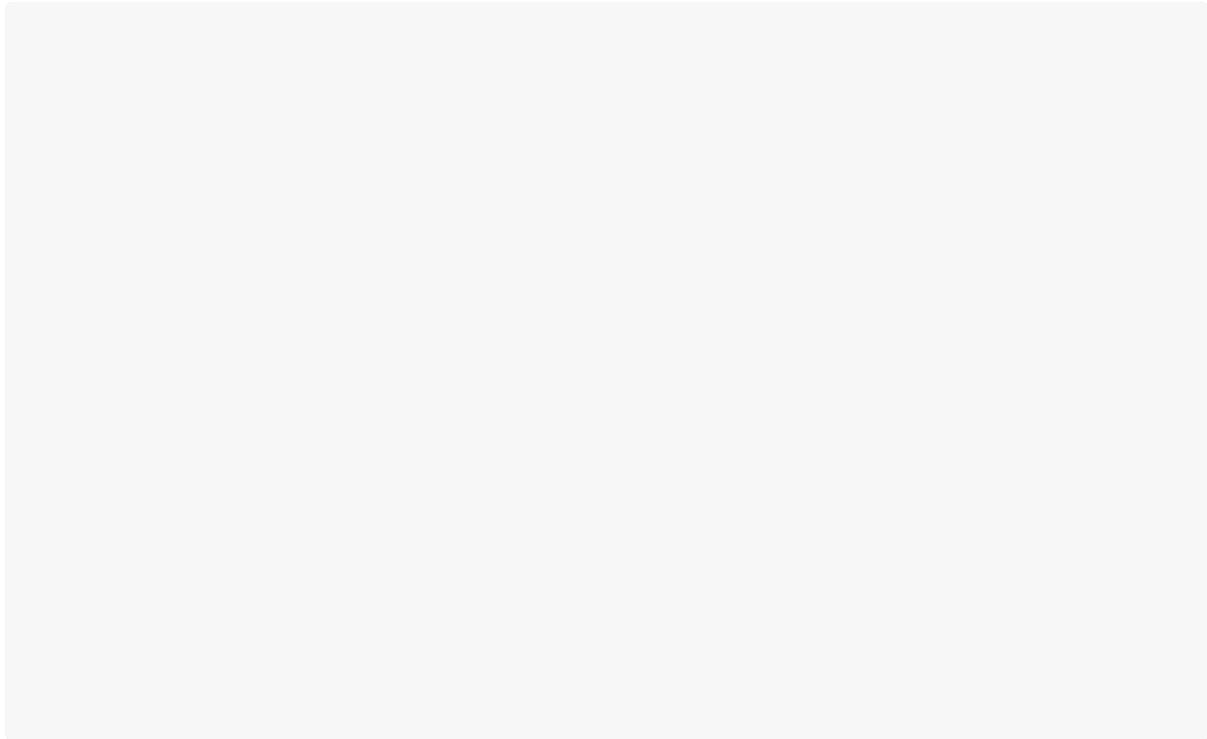
Simple plot example (plot only):



Polar plot with code shown:

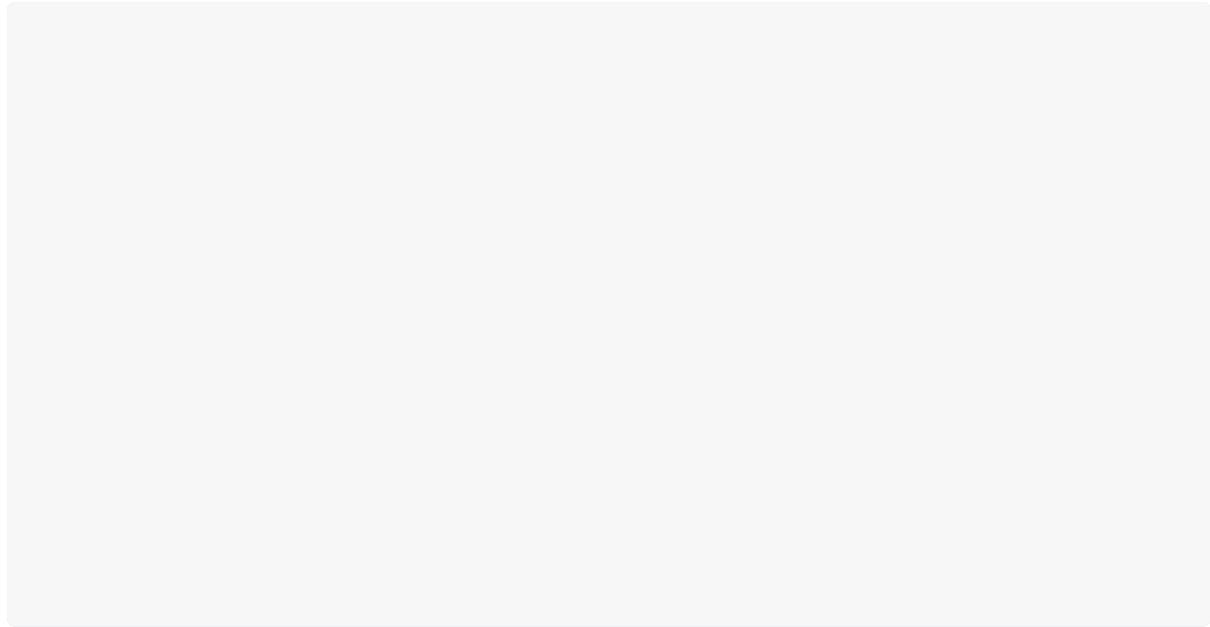


Multiple subplots:



2.20 Document Metadata (JSON)

Document metadata is configured in a separate JSON file:



2.20.1 Title Template Modes

The `titleTemplateMode` setting controls how the title page is displayed:

- `0`: No title (disabled)
- `1`: Full university title page with logo (default) - Good for assignments and reports
- `2`: Title header above content - Good for notes
- `3`: Title on separate page - Good for when the contents are enabled

Controls document structure, metadata, and optional pages.