

# LATEX Passthrough Examples

## Example 1 : Basic LaTeX Commands

You can insert custom LaTeX commands using the LATEX directive:

This paragraph has no indentation.

The LATEX block passes its content directly to the LaTeX output.

## Example 2 : Custom Spacing

Control vertical spacing with LaTeX commands:

The above adds 1cm of vertical space.

You can add as much or as little space as needed.

## Example 3 : Custom Formatting

Apply special formatting to text:

**This text is centered, bold, and large**

The LATEX blocks allow full control over typography.

## Example 4 : Boxes and Frames

Create boxed text with LaTeX environments:

This text appears in a framed box. You can use this to highlight important definitions or theorems.

## Example 5 : Custom Lists

Create specialized list formats:

**Precondition:** The input must be a natural number

**Postcondition:** The output is the square of the input

**Invariant:** The result is always non-negative

## Example 6 : Theorems and Definitions

If you've loaded theorem packages, you can use them:

**Theorem 1.** For all natural numbers  $n$ , we have  $n \geq 0$ .

The LATEX directive lets you use any LaTeX environment or command.

## Example 7 : Page Layout Control

Control page layout with LaTeX commands:

The `clearpage` command forces a page break and flushes all pending floats.

## Example 8 : Mixed Z Notation land LaTeX

You can combine Z notation with custom LaTeX formatting:

$$\left| \begin{array}{l} \textit{example} : \mathbb{N} \\ \hline \textit{example} = 42 \end{array} \right|$$

*Note:* The above defines a constant with value 42.

This demonstrates the flexibility of mixing `txt2tex` notation with raw LaTeX.

## Example 9 : Custom Macros

If you define custom LaTeX macros in your preamble, you can use them:

The `LATEX` directive is your escape hatch for any LaTeX feature not directly supported by `txt2tex`.