

SAMPLE DOCUMENT USING ADENC.STY

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Check out the [Github Repository](#) for `adenc.sty`.

1. PACKAGE OPTIONS

The following package options are supported:

- `color` adds background colors for theorem environments (see Section 2).
- `plain` uses the default theorem environments (`definition`, `plain`, and `remark`).
- `hideproofs` and `hidemarkings` hide, respectively, proof environments and markings generated using the `\markabove` and `\markbelow` commands (see Section 3).
- `workingpaper` adds (1) a watermark with date on the first page to indicate that the current document is a draft and (2) more space to the margin so that notes written with the `\todo` command (using the `todonotes` package) can fully display.

To pass an option, use: `\usepackage[Option]{adenc}` .

To pass multiple options, use: `\usepackage[Option1, Option2, ...]{adenc}`.

2. THEOREM ENVIRONMENTS

Definition 2.1. A definitive **definition** is a definition, by definition.

Lemma 2.2. A lamentable lemma.

Theorem 2.3. A towering theorem.

Corollary 2.4. A cool corollary.

Remark 2.5. A remarkable remark.

Example 2.6. An exemplary example.

Problem 2.7. A problematic problem.

Proof. A precise proof. \square

Numbering can be turned off by using the corresponding * versions of the environments (e.g. `theorem*` instead of `theorem`).

3. MARKING THE DOCUMENT

The `\todo` command in the `todonotes` package is a great way to add notes to a document, but among other things, it does not support display style math and, when used frequently, the places to which they point can be hard to decipher. It is for these reasons that the following commands are introduced:

E.g., this points to the word “can.”
And this to “hard.”

- (a) `\itodo` (inline todo) produces an inline block of notes. This can be used as placeholders for contents to be added later.

This is an example of what notes produced by the `\itodo` command looks like. Unlike the `\todo` command, `\itodo` supports display math:

$$\sum_{n=1}^{\infty} a_n z^n.$$

- (b) `\markabove` and `\markbelow` provide a way to mark texts without altering the spacing. Both commands take two arguments: (1) align method (l, c, or r); and (2) text to display. For example,

Test test test
test1
I'm marking below here
Test test test
above!
Test test test
math! α

is produced by the following code:

```
Test test test\markabove{l}{test1} test\markbelow{c}{I'm marking below here}.
```

```
Test test test test.
```

```
Test test test\markabove{c}{above!} test\markbelow{r}{math! \(\alpha\) }.
```

4. NEW COMMANDS

Some commands (mainly for math symbols) are added or modified for aesthetics and/or convenience. A few notable ones are mentioned below:

Description	Example	LaTeX Commands
Command for styling new vocabulary ¹	vocab	<code>\vocab{vocab}</code>
Contradiction symbol	⊗	<code>\contradiction</code>
Shortcuts for <code>\mathbb</code>	$\mathbb{R}, \mathbb{Q}, \mathbb{F}, \mathbb{P}$	<code>\RR, \QQ, \FF, \PP</code>
Shortcuts for <code>\mathcal</code>	$\mathcal{A}, \mathcal{B}, \mathcal{C}, \mathcal{D}$	<code>\cA, \cB, \cC, \cD</code>
Shortcuts for <code>\mathsf</code>	$\mathcal{L}, \mathcal{T}, \mathcal{U}, \mathcal{V}$	<code>\sL, \sT, \sU, \sV</code>
Better looking complement symbol	A^c	<code>A^\complement</code>
Better looking empty set symbol	\emptyset	<code>\emptyset</code>
Command for vectors	v	<code>\vec{v}</code>
Shortcuts for matrices	$\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$	<code>\bmat{1 & 2 \\ 3 & 4}</code>
	$\begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}$	<code>\pmat{1 & 2 \\ 3 & 4}</code>
	$\begin{vmatrix} 1 & 2 \\ 3 & 4 \end{vmatrix}$	<code>\vmat{1 & 2 \\ 3 & 4}</code>
Differentiation operators	dx, Df	<code>\d x, \D f</code>
(Use <code>\dd</code> in integrals for extra spacing.)	$\int f \, dx$	<code>\int f \, \dd x</code>
Imaginary number	i	<code>\I</code>

5. CREDITS

- I have stolen a lot of stuff from below:
- <https://web.stanford.edu/~lindrew/lindrew.sty>
 - <https://github.com/gillescastel/lecture-notes>
 - <https://tex.stackexchange.com/questions/142242/robust-way-to-mark-draft-text>
 - <https://math.stackexchange.com/questions/160039/are-there-any-symbols-for-contradictions>