

ADENC.STY

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New to \LaTeX ? Want to create beautiful documents? Check out the [adenc](#) package!

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); `boxed` adds a box around the theorem environments. You may choose between one of the two (default is plain).
- `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:

- (a) `\begin{itodo} ... \end{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` environment looks like. Unlike the `\todo` command, the `itodo` environment 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 test1 test
Test test I'm marking below here test.
Test test test.
Test test test above! test
Test test test math! \alpha
```

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! \(\alpha\)}`.

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

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>
	$\begin{Vmatrix} 1 & 2 \\ 3 & 4 \end{Vmatrix}$	<code>\Vmat{1 & 2 \\\ 3 & 4}</code>
Differentiation operators	dx, Df	<code>\d x, \D f</code>
(Use <code>\dd</code> in integrals for correct spacing.)	$\int f \, dx$	<code>\int f \, \dd x</code>
Imaginary number	i	<code>\I</code>
The indicator function	$\mathbb{1}$	<code>\ind</code>
Independent	\perp	<code>\indep</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>

¹In, for example, definitions.

- <https://math.stackexchange.com/questions/160039/are-there-any-symbols-for-contradictions>