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SAMPLE DOCUMENT USING ADENC.STY

ADEN CHEN

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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); 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. □

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."

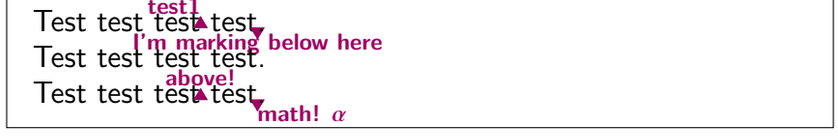
And this to "hard."

(a) \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,



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**	\vocab{vocab}
Contradiction symbol	$\contradiction$	\contradiction
Shortcuts for \mathbb	$\RR, \QQ, \FF, \PP$	\RR, \QQ, \FF, \PP
Shortcuts for \mathcal	$\cA, \cB, \cC, \cD$	\cA, \cB, \cC, \cD
Shortcuts for \mathsf	$\sL, \sT, \sU, \sV$	\sL, \sT, \sU, \sV
Better looking complement symbol	$A\comp$	A\comp
Better looking empty set symbol	$\emptyset$	\emptyset
Command for vectors	$\vec{v}$	\vec{v}
Shortcuts for matrices	$\bmat{1 & 2 \\ 3 & 4}$	\bmat{1 & 2 \\ 3 & 4}
	$\pmat{1 & 2 \\ 3 & 4}$	\pmat{1 & 2 \\ 3 & 4}
	$\vmat{1 & 2 \\ 3 & 4}$	\vmat{1 & 2 \\ 3 & 4}
Differentiation operators	$\d x, \D f$	\d x, \D f
(Use \dd in integrals for correct spacing.)	$\int f \dd x$	\int f \dd x
Imaginary number	$\I$	\I
The indicator function	$\ind$	\ind
Independent	$\indep$	\indep

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

[1] In, for example, definitions.