1 Examples

Note, that parts of the setting are inherited. For instance, the fonts are not reset before defining "Lemma", so the font setting of "Theorem" is used.

1 Example (Simple one) The first example is just a text.

In the next examples, it is shown how an endmark is put at a displaymath, a single equation and both types of eqnarrays. *

1 Theorem (Long Theorem):
The examples are put into this theorem environment.

The next example will not appear in the list of examples

2 Example (Ending with a displayed formula) Look, the endmark is really at the bottom of the line:

$$f^{(n)}(z) = \frac{n!}{2\pi i} \int\limits_{\partial D} \frac{f(\zeta)}{(\zeta - z)^{n+1}} d\zeta$$

*

α Lemma (Display with array):
Lemmata are indented and numbered with greek symbols. Also for displayed arrays of this form, it looks good:

$$a = \begin{array}{ll} first\ line & try\ to\ put\ this\ text\ in\ the\ lowest\ line \\ second\ line & \end{array}$$

♡

β Lemma (Equation):
For `equation`*s, we decided to put the endmark after the equation number, which is vertically centered. Currently, we do not know, how to get the equation number centered and the endmark at the bottom (one has to know the internal height of the math material) ... If anyone knows, please inform us.*

$$\int_\gamma f(z)\,dz := \int_a^b f(\gamma(t))\gamma'(t)\,dt \tag{1}$$

♡

With the —break—-theoremstyles, if the environment is labeled and written as

γ Lemma (Breakstyle):
From the predefined styles, this is exactly the case for the break-styles. That's no bug, it's LaTeX-immanent.

The example goes on with an `eqnarray`*:*

$$\begin{aligned} f(z) &= \frac{1}{2\pi i} \int\limits_{\partial D} \frac{f(\zeta)}{\zeta - z} d\zeta && (2) \\ &= \frac{1}{2\pi} \int\limits_0^{2\pi} f(z_0 + re^{it}) dt && (3) \end{aligned}$$

♡

Proof (of nothing)

$$\begin{aligned} f(z) &= \frac{1}{2\pi i}\int_{\partial D}\frac{f(\zeta)}{\zeta - z}d\zeta \\ &= \frac{1}{2\pi}\int_{0}^{2\pi} f(z_0 + re^{it})dt \end{aligned}$$ ∎

That's it (the end of the Theorem). ♢

If there are some environments in the same thm-environment, the last one gets the endmark:

Definition 1 (With a list).

$$\int_\gamma f(z)\,dz := \int_a^b f(\gamma(t))\gamma'(t)\,dt \tag{4}$$

- you've seen, how it works for text and
- math environments,
- and it works for lists. ♣

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2 Corollary (Q.E.D.):
And here is a trivial corollary, which is ended by *q.e.d*

3 Example

$$f^{(n)}(z) = \frac{n!}{2\pi i}\int_{\partial D}\frac{f(\zeta)}{(\zeta - z)^{n+1}}d\zeta$$

If there is some text after an environment, the endmark is put after the text. ∗

4 Example (Using —verbatim—)
```
And, it also works for verbatim
... when the end{verbatim} is in the
same line as the text ends.
```
∗

There must be no empty line in the input before the end (since then, the end mark is ignored)

3 Theorem:
some text ... but no end mark

Now, there is a corollary which should appear with a different name in the list of corollaries:

4 Corollary (title in text):
let's do something weird:

It also works in the
center
environment. ♠

5 Theorem (Quote):

> *In quote environments, the text is normally indented from left and right by the same space. The endmark is not indented from the right margin, i.e., it is typeset to the right margin of the surrounding text.* ♢

Here is an example for turning off the endmark automatics and manual handling:

6 Theorem (Manual End Mark):
a line of text with a manually set endmark ♢
some more text, but no automatic endmark set.

Also, one should note, that — — is inserted to set the endmark at the right margin.

5 Example (Quickie) It also works for short one's. ∗

If you are tired of the greek numbers and the indentation for lemmata ... you can redefine it:

4 Lemma:
another lemma, with arabic numbering ... note that the numbering continues.♢

the optional argument (i.e. the 'theorem'-name) can be accessed by eg. `\Theoremname`

7 Theorem (somename):
Obviously, we are in Theorem somename. ♢

Now, we define an environment —KappaTheorem— which uses the same style parameters as Theorems and is numbered together with Corollaries (Theorems are also numbered with Corollaries). Note that we define a complex header text and a complex end mark.

8 κ-Theorem (1st κ-Theorem):
That's the first Kappa-Theorem. $\begin{smallmatrix} a \\ b \end{smallmatrix}$

1.1 Extended Referencing Features

This is Section 1.1. A theorem end mark has been set manually in Theorem 6. A center environment has been shown in Corollary 4. The first Kappa-Theorem has been given in κ-Theorem 8.

1.2 Framed and Shaded Theorems

Theorem 9 (Important Theorem):
This is an important theorem. ♢

Theorem 10 (More Important Theorem):
This is a more important theorem. ♢

Theorem 11 (Even More Important Theorem):
This is an even more important theorem. ♢

1.3 Lists of Theorems and Friends