# A proof environment, as an exercise together with its WhizzyT<sub>E</sub>X companion

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This is a short, self-documnented article with lemmas and proofs. Please read the source under Whizzy $T_{EX}$  and the output at the same time.

Just move the cursor down the file in and out of proofs environment. You may also see the self-documented article exercise.tex from the distribution.

\newtheorem{lemma}{Lemma}
\newtheorem{theorem}{Theorem}

Lemma 1 This is the first lemma.

Some short comment on the lemma.

(Proof p. 2)

The text continues after the proof.

Lemma 2 This is the second lemma.

Some short comment on the lemma.

(Proof p. 2)

The text continues after the proof.

**Theorem 1** This is the second lemma.

Its proof is a bit shorter.

(Proof p. 3)

The text continues after the proof.

Lemma 3 Another lemma, without a proof.

**Lemma 4** Yet another lemma, with its proof.

(Proof p. 3)

# 1 Proofs

#### Proof of Lemma 1

This is the proof of the previous lemma.

That is the first one. Its proof is not too long. It just first on a few lines. And it ends there.

## Proof of Lemma 2

This is the proof of the previous lemma. A very long proof. . .

2

. . . . .

.

That ends here.

## Proof of Theorem 1

This is the proof of the previous lemma. This is the proof of the previous lemma.  $\hfill\blacksquare$ 

## Proof of Lemma 4

It the numbering right?