# **Title**

Author

Hello world!

▶ Theorem 1. This is a great result. It has an equation:

$$\sum_{k=1}^{\infty} \frac{1}{k^2} = \frac{\pi^2}{6} \tag{1}$$

The equation number is (1).

**Proof sketch.** This is the proof sketch of Theorem 1.

### 1 Section without Theorems

Since this section does not have any appendix content, it will not appear in the appendix. [1]

### 2 Section with Some Appendix Content

**► Example 2.1.** Examples are numbered within a section.

Not much in the main text.

## 3 Section with Theorems (long)

▶ Theorem 2. Another great result.

**Proof sketch.** Proof sketch of Theorem 2.

- ▶ **Theorem 3.** Another great result, without any proof sketch.
- ▶ **Theorem 4.** A regular theorem, not repeated.

**Proof.** This regular theorem is naturally followed with an inline proof.

▶ **Theorem 5.** A repeated theorem, but with two proofs, one in Appendix and one in main text.

**Proof.** Main text proof of Theorem 5.

### 4 Last Section

- ▶ **Theorem 6** (with note). *Another theorem.*
- ▶ **Theorem 7.** *Last theorem, not repeated.*

**Proof.** Proof, inlined.

#### \_ References

Sergey Brin and Lawrence Page. The anatomy of a large-scale hypertextual Web search engine. *Computer Networks*, 30(1–7):107–117, April 1998.

▶ **Theorem 1.** This is a great result. It has an equation:



**Proof.** This is the proof of Theorem 1.

## A Material for Section with Some Appendix Content (Section 2)

Hello appendix!

## **B** Material for Section with Theorems (long) (Section 3)

▶ Theorem 2. Another great result.

**Proof.** Proof of Theorem 2.

For some reason, this proof has an inline Lemma:

▶ **Lemma 8.** This is the lemma (numbered following the theorem numbering).

**Proof.** And this lemma has a proof as well!

This concludes the global proof of Theorem 2.

▶ **Theorem 3.** Another great result, without any proof sketch.

**Proof.** Proof of Theorem 3. It has two references [sit08, BP98].

▶ **Theorem 5.** A repeated theorem, but with two proofs, one in Appendix and one in main text.

**Proof.** Appendix proof of Theorem 5.

And now for no particular reason, two isolated proofs in the appendix, written in two different ways:

**Proof of a non-existing result.** First with a regular **proof** environment inside a **toappendix** environment.

**Proof.** Second, with the specific appendixproof environment (but then, cannot change the proof name).

# C Material for Last *Section* (Section 4)

▶ **Theorem 6** (with note). *Another theorem.* 

This theorem does not have a proof, but a discussion in the appendix. apxproof can figure, because of the theorem environment that follows, that the proof of the following theorem is not a proof of this theorem.

### - Appendix References

BP98 Sergey Brin and Lawrence Page. The anatomy of a large-scale hypertextual Web search engine. *Computer Networks*, 30(1–7):107–117, April 1998.

sit08 sitemaps.org. Sitemaps XML format. http://www.sitemaps.org/protocol.php, February 2008.