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.

Proof. This is the proof 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.

Hello appendix!

3 Section with Theorems (long)

▶ Theorem 2. Another great result.

Proof sketch. Proof sketch of Theorem 2.

Proof. Proof of Theorem 2.

For some reason, this proof has an inline Lemma:

▶ **Lemma 3.** 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 4.** Another great result, without any proof sketch.

Proof. Proof of Theorem 4. It has two references [2, 1].

▶ **Theorem 5.** A regular theorem, not repeated.

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

▶ **Theorem 6.** A repeated theorem, but with two proofs, one in Appendix and one in main text.

Proof. Main text proof of Theorem 6.

Proof. Appendix proof of Theorem 6.

2 Title

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).

4 Last Section

▶ **Theorem 7** (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.

▶ Theorem 8. Last theorem, not repeated.

Proof. Proof, inlined.

References -

- 1 Sergey Brin and Lawrence Page. The anatomy of a large-scale hypertextual Web search engine. *Computer Networks*, 30(1–7):107–117, April 1998.
- 2 sitemaps.org. Sitemaps XML format. http://www.sitemaps.org/protocol.php, February 2008.