

# Title

Author

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	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

- [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.

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

$$\sum_{k=1}^{\infty} \frac{1}{k^2} = \frac{\pi^2}{6} \quad (1)$$

*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. `apx-proof` 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.