

# A proof of a conjecture on sequences with unusual properties

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## Abstract

The paper should begin with a clear and informative abstract.

## 1 Introduction

We prove a conjecture due to John Smith [1] concerning sequences with unusual properties.

**Theorem 1.** *Sequences with unusual properties exist.*

We shall prove Theorem 1 using a new method, which we call the magical method.

## 2 The magical method

In this section we describe our main method.

**Lemma 2.** *If a sequence satisfies property A, then it satisfies property B.*

*Proof.* Suppose for a contradiction that a sequences satisfies property A, but does not property B. . . . □

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\*First Author is supported by funding organisation xyz.

### 3 Proof of Theorem 1

In this section we complete the proof of Theorem 1.

*Proof of Theorem 1.* Argument . . . . This completes the proof of Theorem 1. □

#### Acknowledgements

Possible acknowledgements.

#### References

- [1] J. Smith. A conjecture on sequences with unusual properties. *J. Major Results*, 5(2):100–200, 1950.