Title

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Abstract

This is a simple example to showcase the Obsidian to LaTeX converter.

1 Introduction

This document demonstrates the conversion of Markdown notes to a LaTeX document, including internal links and embedded content.

2 Results

We present the following lemma:

Lemma 1. *Every even integer greater than 2 can be expressed as the sum of two prime numbers.*

The main theorem is:

Theorem 2. *For every positive integer n , the sum of the first n odd integers is equal to n^2 .*

3 Proofs

Here is the proof for the main theorem. The proof is specifically for Theorem 2. I may or may not follow from [1].

Proof. We proceed by induction. Base case ($n = 1$): The sum of the first odd integer (1) is equal to 1^2 , which is true. Inductive step: Assume that the sum of the first k odd integers is equal to k^2 . We want to show that the sum of the first $k + 1$ odd integers is equal to $(k + 1)^2$. The sum of the first k odd integers is k^2 . The next odd integer is $(2k + 1)$. Therefore, the

□

References

[1] Mark Rudelson and Roman Vershynin. "On Sparse Reconstruction from Fourier and Gaussian Measurements". In: *Communications on Pure and Applied Mathematics* 61.8 (Aug. 2008), pp. 1025–1045. ISSN: 00103640, 10970312. DOI: 10.1002/cpa.20227. URL: https://onlinelibrary.wiley.com/doi/10.1002/cpa.20227 (visited on 02/27/2022).