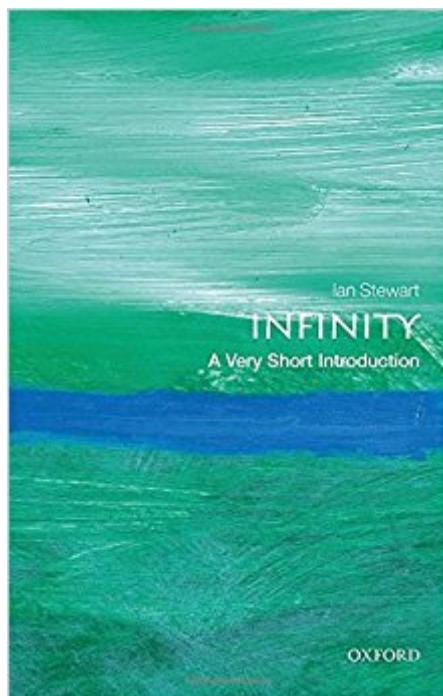The book was found

Infinity: A Very Short Introduction (Very Short Introductions)

Synopsis

Infinity is an intriguing topic, with connections to religion, philosophy, metaphysics, logic, and physics as well as mathematics. Its history goes back to ancient times, with especially important contributions from Euclid, Aristotle, Eudoxus, and Archimedes. The infinitely large (infinite) is intimately related to the infinitely small (infinitesimal). Cosmologists consider sweeping questions about whether space and time are infinite. Philosophers and mathematicians ranging from Zeno to Russell have posed numerous paradoxes about infinity and infinitesimals. Many vital areas of mathematics rest upon some version of infinity. The most obvious, and the first context in which major new techniques depended on formulating infinite processes, is calculus. But there are many others, for example Fourier analysis and fractals.In this Very Short Introduction, Ian Stewart discusses infinity in mathematics while also drawing in the various other aspects of infinity and explaining some of the major problems and insights arising from this concept. He argues that working with infinity is not just an abstract, intellectual exercise but that it is instead a concept with important practical everyday applications, and considers how mathematicians use infinity and infinitesimals to answer questions or supply techniques that do not appear to involve the infinite.

Book Information

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Customer Reviews

Professor Ian Stewart of Warwick University is a well-known and highly successful writer on mathematics and its applications. He has authored over 80 books including From Here to Infinity (OUP, 1996), Does God Play Dice? (Penguin, 1997), Symmetry: A Very Short Introduction (OUP,

2013), and the bestselling series The Science of Discworld I, II, III, and IV with Terry Pratchett and Jack Cohen.

This is a brief history and overview of the kinds of infinity that were "discovered" by various mathematicians. First, the history is presented from ancient times on up through the present, with most of the breakthroughs arriving in the past 200 years or so. Next, the types of infinity are given along with their proponents. We learn how and why there are different kinds of infinities based on diagrams, metaphors and succinct explanations. Learn, why for example, a irrational and rational numbers can form different types of infinite sets. And stay at Hilbert's Hotel where there's always a room for you! Also, get a glimpse of Cantor's Paradise, and why we can never go back.All of this is fascinating, and this brief overview is a marvelous delight for this non-mathematician who had extensive training nonetheless in mathematics. I feel that those who had a hard time in maths might be puzzled by a lot of what is contained here, but not all of it. Give it a try!

I am satisfied.

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