

Introduction

This book solves many famous problems such as prisoner's dilemma and half-fee litigation. The new academic viewpoints put forward in this book are: (1) The Pythagorean school and later generations' proof that $\sqrt{2}$ is not a rational number is invalid. (2) A new definition is given to the concept of non-predicative definition, thus providing a logical justification for the legality of scientific concepts like function maximum. (3) Reconstruction of the theory of natural number provides an ultimate and reliable foundation for mathematics.

Through the resolution of a large number of specific paradoxes, this book hopes that readers can establish a correct view that invalid reasoning is the cause of paradoxes, thus making it clear that the correct way to resolve paradoxes should be to find out the specific causes leading to invalid reasoning.

This book can be used as a teaching reference book for general courses such as paradox, logic, game theory, economics, etc.

Intended readers: Middle and high school students, middle school teachers, researchers, and amateurs of relevant issues in the book.

Sales suggestions: Philosophy, logic, mathematics, game theory, economics.