

# Contents

Introduction by <i>Reuben Hersh</i> .....	vii
About the Authors.....	xvii
<b>Chapter 1</b>	
A Socratic Dialogue on Mathematics .....	1
<i>Alfréd Rényi</i>	
<b>Chapter 2</b>	
“Introduction” to <i>Filosofia e matematica</i> .....	17
<i>Carlo Cellucci</i>	
<b>Chapter 3</b>	
On Proof and Progress in Mathematics .....	37
<i>William P. Thurston</i>	
<b>Chapter 4</b>	
The Informal Logic of Mathematical Proof .....	56
<i>Andrew Aberdein</i>	
<b>Chapter 5</b>	
Philosophical Problems of Mathematics in the Light of Evolutionary Epistemology.....	71
<i>Yehuda Rav</i>	
<b>Chapter 6</b>	
Towards a Semiotics of Mathematics .....	97
<i>Brian Rotman</i>	
<b>Chapter 7</b>	
Computers and the Sociology of Mathematical Proof.....	128
<i>Donald MacKenzie</i>	

## Chapter 8

- From G.H.H. and Littlewood to XML and Maple:  
Changing Needs and Expectations in Mathematical Knowledge Management..... 147  
*Terry Stanway*

## Chapter 9

- Do *Real* Numbers Really Move? Language, Thought, and Gesture:  
The Embodied Cognitive Foundations of Mathematics ..... 160  
*Rafael Núñez*

## Chapter 10

- Does Mathematics Need a Philosophy? ..... 182  
*William Timothy Gowers*

## Chapter 11

- How and Why Mathematics Is Unique as a Social Practice ..... 201  
*Jody Azzouni*

## Chapter 12

- The Pernicious Influence of Mathematics upon Philosophy..... 220  
*Gian-Carlo Rota*

## Chapter 13

- The Pernicious Influence of Mathematics on Science..... 231  
*Jack Schwartz*

## Chapter 14

- What Is Philosophy of Mathematics Looking for? ..... 236  
*Alfonso C. Ávila del Palacio*

## Chapter 15

- Concepts and the Mangle of Practice Constructing Quaternions..... 250  
*Andrew Pickering*

## Chapter 16

- Mathematics as Objective Knowledge and as Human Practice..... 289  
*Eduard Glas*

## Chapter 17

- The Locus of Mathematical Reality:  
An Anthropological Footnote ..... 304  
*Leslie A. White*

## Chapter 18

- Inner Vision, Outer Truth..... 320  
*Reuben Hersh*

18 Unconventional Essays on the Nature of  
Mathematics

Hersh, R. (Ed.)

2006, XXII, 326 p. 10 illus., Softcover

ISBN: 978-0-387-25717-4