





# Contents

*Introduction ix*

CHAPTER 1

*A Precocious Genius 1*

CHAPTER 2

*Filling the Void: From Galileo to Torricelli 17*

CHAPTER 3

*Creating Emptiness: Pascal's Ingenious Methods 41*

CHAPTER 4

*The Battle of the Void: The Jesuits Against Pascal 65*

CHAPTER 5

*The Great Experiment on a Mountain in France 99*

CHAPTER 6

*Why Pumps Work: The Treatise on the Equilibrium  
of Liquids 129*

CHAPTER 7

*Submerged in a Sea of Air: The Treatise on the  
Weight of the Mass of Air 155*

*Contents*

CHAPTER 8

*Pascal on the Advancement of Learning in Science  
and Religion 187*

CHAPTER 9

*The Use of Logic and the Role of Experiments 209*

CHAPTER 10

*The Marvelous Arithmetical Triangle 241*

CHAPTER 11

*Mastering Games of Chance 257*

CHAPTER 12

*Putting the Arithmetical Triangle to Work 291*

CHAPTER 13

*The Brilliance and Pride of a Gambler and a  
Mathematician 313*

*Conclusion 333*

*Selected Bibliography 341*

*Index 347*