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Sommario/riassunto

Mathematics is a poem. It is a lucid, sensual, precise exposition of beautiful ideas directed to specific goals. It is worthwhile to have as broad a cross-section of mankind as possible be conversant with what goes on in mathematics. Just as everyone knows that the Internet is a powerful and important tool for communication, so everyone should know that the Poincaré conjecture gives us important information about the shape of our universe. Just as every responsible citizen realizes that the mass-production automobile was pioneered by Henry Ford, just so everyone should know that the P/NP problem has implications for security and data manipulation that will affect everyone. This book endeavors to tell the story of the modern impact of mathematics, of its trials and triumphs and insights, in language that can be appreciated by a broad audience. It endeavors to show what mathematics means for our lives, how it impacts all of us, and what new thoughts it should cause us to entertain. It introduces new vistas of mathematical ideas and shares the excitement of new ideas freshly minted. It discusses the significance and impact of these ideas, and gives them meaning that will travel well and cause people to reconsider their place in the universe. Mathematics is one of mankind's oldest disciplines. Along with philosophy, it has shaped the very modus of human thought. And it continues to do so. To be unaware of modern mathematics is to be miss out on a large slice of life. It is to be left out of essential modern developments. We want to address this point, and do something about it. This is a book to make mathematics exciting for people of all interests and all walks of life. Mathematics is exhilarating, it is ennobling, it is uplifting, and it is fascinating. We want to show people this part of our world, and to get them to travel new paths.
