

ZMATH 2013e.00575

Dineen, Seán

Analysis. A gateway to understanding mathematics.

Hackensack, NJ: World Scientific (ISBN 978-981-4401-38-8/hbk). xviii, 301 p. (2012).

The book is based on the course on differential and integral calculus of one real variable taught for students of Economics and Finance at the University College Dublin. The author wanted to show the readers how to approach and understand mathematics. The book covers the traditional topics of calculus such as continuity and differentiability of functions, sequences, infinite series, the Riemann definite integral and its applications. Moreover, the book also contains chapters on the foundations of mathematics. Let us mention, for example, an introduction of real numbers through completion of rational numbers. In many places in the book the reader can find historical notes related to topics dealt with. This book may be used as a text in a standard one variable calculus or analysis course, however it might be also very useful for better understanding of the fundamentals of the mathematical analysis. *Petr Gurka (Praha)*

Classification: I15

Keywords: real functions of one real variable; numbers; sequences; series; continuous functions; differentiable functions; Riemann integral