

ZMATH 2012a.00445

Duverney, Daniel

Number theory. An elementary introduction through Diophantine problems.

Monographs in Number Theory 4. Hackensack, NJ: World Scientific (ISBN 978-981-4307-45-1/hbk; 978-981-4307-46-8/pbk). xii, 335 p. (2010).

A very “fresh” look into Number Theory and especially into diophantine problems, through a very interesting and appealing structure is presented. Indeed, the structure of the content is unique and follows five different but not always independent paths. Having as common start the diophantine approximation the representations of real numbers, continued fractions and Padé approximants take the lead, together with quadratic fields and algebraic numbers. Then, the above are properly filled up with sums of squares, arithmetical functions, number fields, ideals and transcendence methods. The flow of the content of each chapter is very smooth and connected, giving “delightful” results.

Panayiotis Vlamos (Athens)

Classification: F65

Keywords: Diophantine problems; quadratic fields; algebraic numbers