

Introduction to Mathematics with *Maple* by P. Adams, K. Smith, R. Výborný. World Scientific, 2004

The aim of this book is to equip the readers with understanding and sufficient knowledge with various topics in Mathematics with the help of computer algebra package Maple. There are fifteen chapters in this book. Each starts with a short abstract describing the content and aim of the chapter. Chapter 1 is an introductory chapter where the scope and guiding philosophy of the book is explained. In Chapter 2, “Sets”, essential parts of set theory are explained. Chapter 3 is on “Functions” where functions and relations are explained. In Chapter 4, “Real numbers” are introduced on an axiomatic basis. An alternative development of the real number system, starting from Peano’s axioms for natural numbers is discussed. Proof of some important inequalities by “Mathematical induction” is covered in Chapter 5. “Polynomials” are introduced in Chapter 6. In Chapter 7, “Complex numbers” are discussed. Existence and uniqueness of solutions are introduced in Chapter 8. Chapter 9 is devoted for a discussion on the concepts of equivalence for sets. In Chapter 10 and Chapter 11 Sequences and series are covered. Limits and continuity of functions are discussed in Chapter 12. Derivatives, elementary functions and integrals are covered in the remaining three chapters. The Appendix contains some examples of Maple programs. Finally, the book concludes with a list of references, an index of Maple commands used in the book and a general index. There are a lot of exercises to help readers to master the material presented. This is an excellent book for all lovers of Mathematics who use symbolic computation packages like Maple.

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