Abstract

Title: Introduction of complex numbers in history of algebra

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The aim of this thesis is to compare the introduction of complex numbers in history of algebra and its different introduction in textbooks at high schools. This thesis consists of three main chapters. The first chapter is dedicated to historical overview of important personalities who work with complex numbers. It is a short overview of personalities from 16th till 18th century and their connection to complex numbers. The second and the third chapters are focused more practically and their goal is to compare selected books from 16th till 18th century or the textbooks.

In second chapter the selected books from 16th till 18th century are described and compared with each other. The square roots of negative number, lately called imaginary numbers, were first mentioned in this time period. Their final comparison is very important and it could be used as a recommendation or inspiration for students – future teachers in mathematics.

The third chapter compares four selected textbooks at high school from different period of time and emphasize on explanation of history. It describes the differences in introduction of complex numbers, its definition and main characteristic. At the end it answers to the reader what is the todays use of complex numbers.

Key words: cubic equation, casus irreducibilis, square root of negative numbers, imaginary numbers, complex numbers