

Title: Solving strategies of word problems in their historical development

Abstract

This thesis deals with word problems which can be solved by using linear equations. Its aim is to create a collection of current and historical problems selected from different periods of the history of mathematics.

In the first part, the level of emphasis put on the use of word problems in the teaching of mathematics by the Framework Education Programme is shown. The contribution of word problems to developing mathematical and financial literacy is also highlighted

The second part deals with the history of mathematics focusing on the domains of equations and word problems, both from a worldwide and Czech perspective.

The third part is a collection of type problems. The problems are grouped according to context in the way it is usually done in Czech educational materials for primary and secondary schools: problems dealing with the division of a whole into unequal parts, problems dealing with movement, problems dealing with joint work and problems dealing with mixtures.

The collection contains three types of problems. Current problems are adopted from contemporary textbooks and collections of problems for schools. Historical problems are taken from historically significant resources from different countries. Outdated problems mainly originated in the last century. These problems are outdated from the perspectives of context, terminology etc.; in the thesis, their adaptations for teaching mathematics nowadays are proposed.

Key words: word problems, solving by linear equations, historical, relationships, collection of problems