Abstract

The topic of my diploma thesis is the solution to exercises of volume and surface of 3D solids. The aim of the thesis is to make own didactic test and to analyse the methods of solution to math exercises in the 9th grade students of ZŠ Amálská. Also to compare the results of the tests in math and science orientated class to "normal[1]" class and to find out the success rate of solutions in both classes. I focused only on pyramid and cone, because they are part of curriculum in 9th grade of basic schools after students are admitted to high schools, and after examination of educational programme of chosen school I realised that both classes had the same outputs of given schoolwork.

I divided my thesis into two parts - theoretical and practical part. Theoretical part contains five chapters. In the first chapter I focus on didactic tests and their making. In the next chapter I deal with evaluation in general and school evaluation. In the third part there is the term of word exercise defined. In the fourth chapter there are solutions to the word exercises. And in the last chapter I define the term geometrical solid. In the practical part there are the aims and methods of survey, characteristic of research sample, making of didactic test, content of didactic test and analysis of students' solutions described.

Keywords: word exercise, didactic test, evaluation, volume, surface, pyramid, cone

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[1] class without specialization