

The Diploma Thesis presents the outcomes of the research based on solving the tasks of a mathematical surroundings Cobwebs by the pupils of the 3rd and the 4th classes of elementary school. The first chapter defines the surroundings from the mathematical point of view, the chapter two deals with the didactic application of Cobwebs. Interesting pieces of phenomenon occurred in the experiments and its roots are described in the following chapter as well as the results of a quantitative experiment. The last part of the thesis shows a course of the workshop at the conference Dva dny s didaktikou matematiky 2009 in Prague and describes the participants' comments to the surroundings of Cobweb tasks. The supplements include an elaboration of the experiments containing the protocol, evidence, comments, the cascade of the tasks and the video recording.