

**Title:** Solved problems in mechanics

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**Abstract:** A set of tasks presented in this thesis is related to fluid mechanics and gravity field. The tasks were created for the electronic collection of solved problems in physics. Overall, fifteen tasks were created and are available on the website: <http://fyzikalniulohy.cz/>. The tasks include detailed structured solutions inclusive of images and help. Problems, aims, and structure are defined in the introduction. An overview of the curriculum, which discusses the topic of the elementary, middle and high school, is presented in the second chapter. The third chapter is devoted to several collections of tasks concerning the discussed issue. A brief general characteristic of the electronic collection, description of technical solution of tasks and the own contribution are contained in the fourth chapter. To this chapter, an appendix with examples of five tasks is attached. The results are summarized in the conclusion. The work is supplemented with a CD, which contains all the created tasks and the text of the thesis.

**Keywords:** fluid mechanics, gravity field, electronic collection of tasks