

Abstract

This Bachelor Thesis is focused on the problem of constructions with ruler and compass. Its aim is to introduce the proves of impossibility of doubling the cube, trisecting the angle and construction of regular heptagon with ruler and compass alone, in the language which could be understood by high-school student. The work consists of four parts. The first part presents historical context of the progress of the construability problem with the development of geometry and algebra. The second part summarize constructions, whose solution has been known since antiquity. The third part describes the principle of analytic geometry and the method of using equations in solving geometrical problems. In the fourth part are completely characterized constructible problems and it is proved that the problems mentioned above do not fall into this category.