

The aim of this thesis is to introduce a series of knowledge from advanced planimetry, which can be proved using the knowledge of high school geometry. Selected theorems deal with characteristic of squares with a common vertex (Finsler–Hadwiger theorem, Theorem of Four Squares, Bottema's theorem), significant points of plane entities (Gergonne point theorem, Švrček point theorem, Simson's Theorem, Miquel's theorem), Feuerbach's circle and its relation to the Euler's line. In this thesis, there is also mentioned Reim's theorem, Napoleon's theorem, and Thebault's theorem. This thesis contains a lot of illustrations created in the Geogebra Mathematical Software, which are available online in interactive form.