

Povzetek

V delu raziskujemo geometrijo origamija. Seznanimo se s Huzita-Hatori aksiomi. Pokažemo, kako se z origamijem poiščejo rešitve kvadratne in kubične enačbe. Z origamijem so rešljivi tudi nekateri starogrški problemi, kot so trisekcija kota, podvojitev kocke in konstrukcija nekaterih n -kotnikov.

Abstract

The aim of this thesis is to show the connections between origami folds and Euclidean constructions with straight-edge and compass. A set of postulates named Huzita-Hatori axioms, similar to those of Euclidean geometry, have been established and some origami folds can even solve quadratic and cubic equations. By using origami, we can also solve some Ancient Greek problems like angle trisection, the classic Delian problem (finding a cube twice the volumen of given cube) and construction of some regular n -gon.

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Ključne besede: origami, origami aksiomi, kubične enačbe, trisekcija kota, podvojitev kocke, konstrukcija 7-kotnika

Keywords: origami, origami axioms, the cubic equation, trisection, duplication of the cube, construction of heptagon

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