



ON PENCILS OF LINEAR AND QUADRATIC PLANE CURVES

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ABSTRACT. *There is a range of geometry software tools for teaching and learning many topics in geometry, algebra and calculus from middle school to the university level. Dynamic software package like Geogebra help students to acquire knowledge about many geometric objects both in the classroom and at home. We show basic facts from the theory of pencils of planar curves that can be defined as a linear combination of their equations. In addition, we look at some possibilities of the software GeoGebra to visualize linear and quadratic plane curves, and their linear combinations. In this paper, possible approach how to use the pencil of planar curves in solving classical problems of analytic geometry is discussed.*

KEY WORDS: *Pencil of planar curves, linear combination, dynamic software.*

CLASSIFICATION: *G44, D44*

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