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## **APPLICATION OF THE GEOGEBRA EDUCATIONAL SOFTWARE IN DETERMINING THE GEOMETRIC LOCUS**

### **Abstract**

*The concept of geometric locus is of significant importance in mathematics, and the problems in its determination remain quite complex and difficult. The development of educational technology enables a different approach to solving such problems. This paper signifies the possibility of determining the geometric locus by the means of a constructed didactic model, the foundation of which is conceived in three dimensions. The first part of the study introduces the theoretical basis of the model related to its dimensions. In the first of its dimensions, the model is oriented towards the didactic concept of solving mathematical problems, in accordance with the model of George Polya. In the second dimension, the model is oriented towards the didactic concept of solving problems in geometry, in accordance with the Van Hiele model. The third dimension defines the determinants of the model related to the GeoGebra educational software. The second part of the study presents the realisation of the given model in a specific problem, encompassing the detailed steps, points of conflict, as well as suggestions how to overcome them.*