

ABOUT PLOT AREA DETERMINATION IN CASE OF REQUIRED COORDINATE SUPPORT DEFICIENCY

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The article is devoted to the relevant problem of the adjustment of different-time and different-accuracy results of land plot coordination support which highly require cadastral registration. The most significant factor in the given case is the area of a land plot, which is its main parameter being taken into account in determination of type of permitted use, cadastral value, land tax and rent. Therefore, area determination requires rather high accuracy, in particular, for garden and vegetable garden plots. According to statistics the significant part of earlier registered land plots contains errors, that's why there are often the cases when adjacent plots overlap or their area is determined obviously incorrectly. Such situations require solutions, which are based on repeated cadastral measurements with possible use of several options for determination of adjacent plots areas, which were considered in working formulas of Heron and Brahmagupta. The given formulas do not use land plot boundary points coordinates, that's why they can perform some control functions in cases of repeated coordinate determination in such situations. The result of the present research was the formulation and solution of the problem of clarifying the location of gardening land plots and summer cottages in general that were previously approximated to the locality. The results of cadastral activities characterized the essence and content of using the formulas of Geron and Brahmagupta for calculating the values of areas, an analysis is carried out and practical recommendations for their use are given.

Keywords: land plot, coordinates of characteristic points, area calculation error, land area, Heron's formula, Brahmagupta's formula

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