COMPARING CORRECTNESS RESULT OF AREA MEASUREMENT BY USING PLANIMETER AND TRILATERAL METHOD DIVISION (HELO'S FORMULA) AT VARIOUS SCALES MAP

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Abstract

Wide is the amount of area which projection at horizontal area and encircled by border line. Wide-work can be classified into studio work and field work. In this research, will be used the way of wide by measuring map. Measurement in this way can be done by using planimeter and by using trilateral division method (helon's formula).

The election of measurement wide method by using planimeter and measurement by using trilateral division method constituted by several things, such as limitation of data / map, limitation of available appliance and limitation of ability consumer.

Both, in practice, the method above used for the primary survey, or to be wide of area in large scale.

The results of this research are:

1. Wide of deviation percentage for the measurement which use planimeter is 2-17%. The wide deviation possibility resulted from map generalizing process.
2. Wide deviation percentage for the measurement which use trilateral division method range from 3-6%. This matter because of inaccurate in division of area trilaterally. Beside that, lower correctness influenced by difference form and wide of area which measured at various used scale.
3. Wide measured area mean with planimeter is 6238995,629 m², wide measured area mean with trilateral division method is 6049991,882 m². Wide mean both method above is equal 6154493,755 m² with wide deviation 104501,87 m² or about 1,7 %. wide deviation equal to 1,7 % possibility because of used map sample not fulfill map generalizing rule, namely form wide area which measured at various unequal used scale.

Keyword: Planimeter, Trilateral Division Methode, Wide, Wide Deviation