GINI-Coefficient and GOZINTO-Graph

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GINI-Coefficient together with LORENZ-curve and GOZINTO-Graphs are economic applications of secondary school mathematics. They are part of the curriculum in Austria’s Colleges for Business Administration (= Handelsakademie).

The GINI-Coefficient is a means for measuring the income distribution – and other distributions - of a nation’s population. It is commonly used as a measure of inequality of income or wealth.

This sounds a little bit complicated but in fact it is an easy to perform application of integration based on the modelling of the so called LORENZ-Curve. We should be happy to find an application of definite integral which is not only calculation of the area between two curves.

The GOZINTO-Graph or GOZINTO-Chart is a pictorial representation that shows how the elements required to build a product fit together. This is often the first step for several planning functions especially for material requirements planning, for time and manpower resources planning, for production cost, etc.

This chart gives the input for building the production matrix. Easy to understand and supported by technology easy to perform matrix calculations are leading to the results.

Students can easily be inspired to design own tasks. Examples of students’ works will be presented.

Technology: TI-Nspire, DERIVE or any other CAS