ABSTRACT

for coursework, student Vilboy Mykhailo, group XA-51
on discipline "Numerical methods"
on the topic of *"Solving systems of linear equations using Gauss-Jordan method"*

In the coursework was analyzed the task, were defined the means needed for its implementation, studied the Gauss-Jordan method for solving systems of linear equations. To solve this problem has been developed a program in Visual Studio 2015(Visual C++, Win32 Console Application), which consists of two files, header file and main file. The program allows solving a system of linear equations using Gauss-Jordan method. The results are shown in matrix and in usual forms.

In the second part of the coursework were solved three typical problems of approximation of function: estimating coefficients of empirical dependence, estimating the type and coefficients of approximating dependence, spline interpolation. Analysis of results(graphs, comparison tables and standard deviations) shown that all approximating functions describe the experimental data very good.