

Calculate exact integrals in the visual basic window of excel

¹ *Nodira Sharifovna Khodjayeva*

² *Muslimakhon Tokhirboyevna Yakhyayeva*

¹ *Scientific adviser of Tashkent State Transport University*

² *Student of Tashkent State Transport University*

Abstract A graphical view of the exact integral is shown and the execution is shown in the Visual basic window of Excel.

Key words: Calculation, Exact integral, window, program, command

Introduction

Problems solved in MS Excel are often related to the performance of calculations, the organization of the database and the performance of various operations on the prepared data, the visual presentation of data.

The calculation and execution of formulas in Excel is done in the following order: First, the expressions in parentheses are considered. Then the operators are executed, keeping the order of operations. If formulas contain several operators of the same order, they are executed sequentially from left to right. The following table shows the order of execution of the operators used in the formulas.

Main Part

If the formula is entered in a cell, the result of the calculation based on the formula entered in the cell is displayed. However, the formula itself appears in the formula bar when the corresponding cell is activated. Formulas always start with a "=" sign. Using this symbol, EXCEL distinguishes text and formulas. There are two ways to enter formulas in a cell:

1) Enter the formula on the keyboard: put the "=" sign, then enter the formula. When you enter, the characters appear in the formula bar as well as in the activated cell. You can use the usual edit buttons to enter formulas.

2) Entering formulas by specifying the location of the cells: In this method, too, the formulas are done by typing from the keyboard, but with less use. This way, instead of entering the cell address, they are simply displayed.

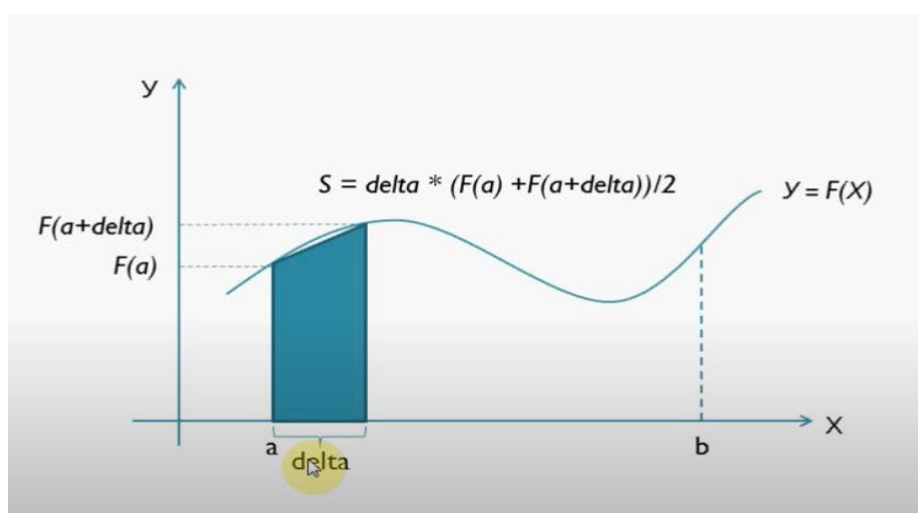


Figure 1. Graphical representation of the exact integral

Select the "Developer" window in Excel and go to the "Visual basic" command.

As shown in Figure 2, the calculation of the exact integral in the Visual basic window of Excel is as follows. As an example, consider the trapezoidal calculation of exact integrals:

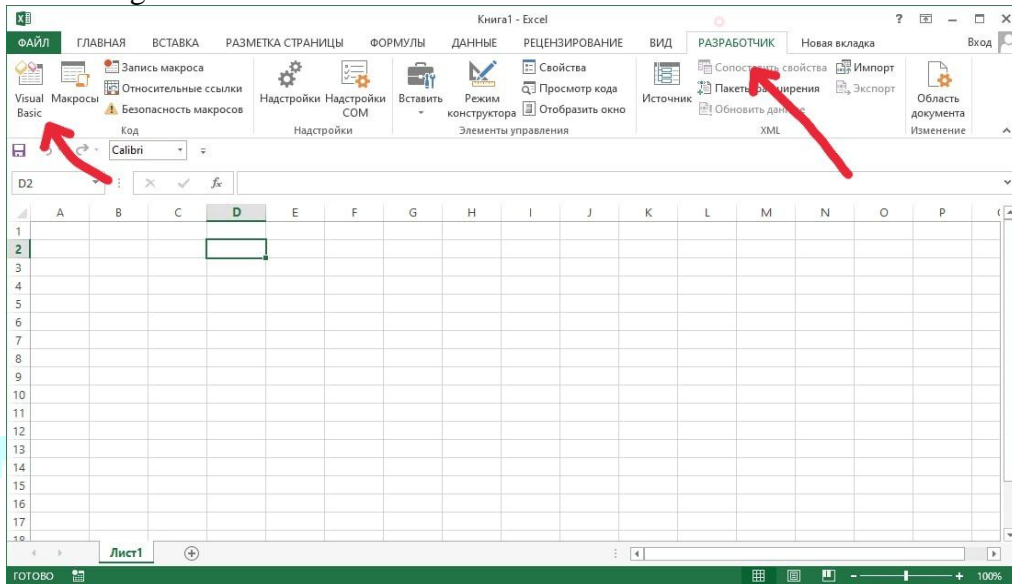


Figure 2.

Then we have the Visual Basic window.

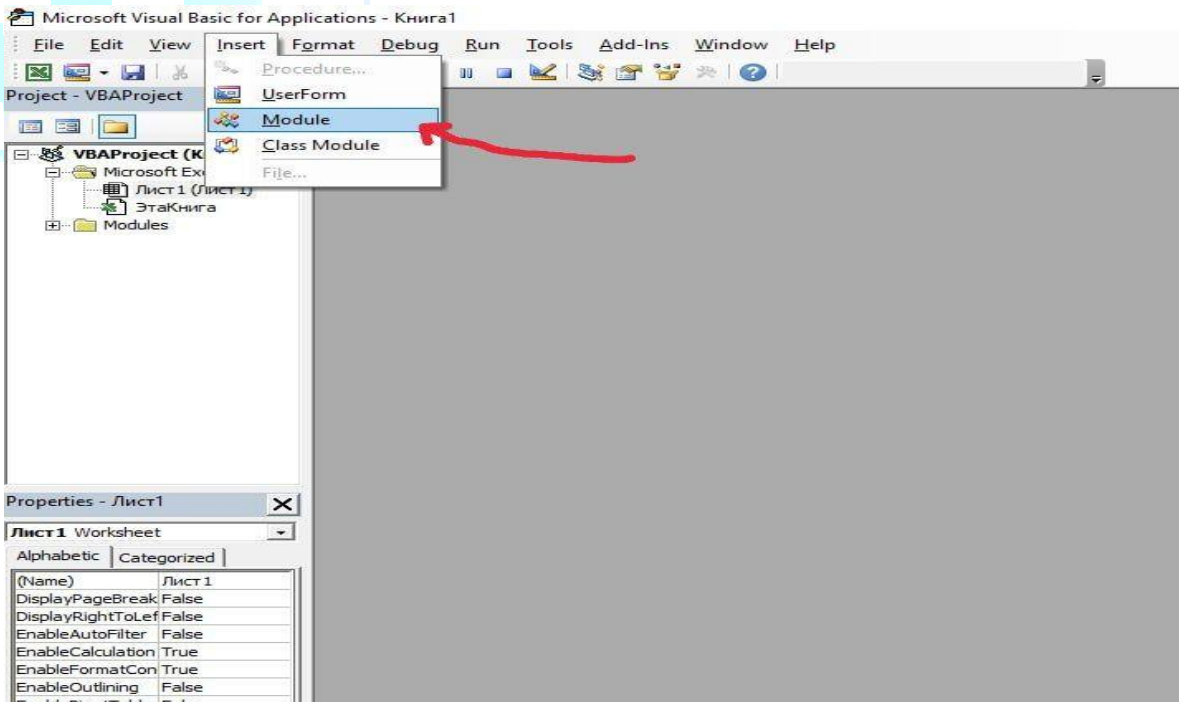


Figure 3.

As shown in Figure 3, select the Insert command in the Visual Basic window, and then left-click once on the Module.

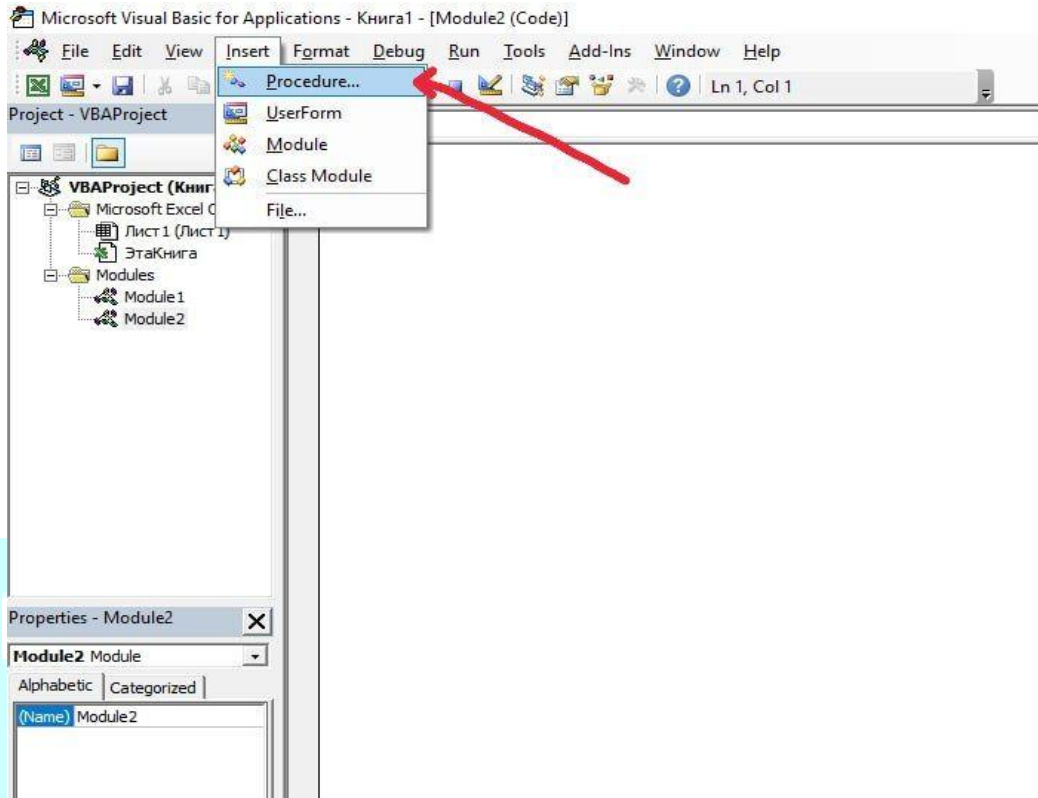


Figure 4.

As shown in Figure 4, we then select the Insert command in the Visual Basic window, then enter the Procedure with the left mouse button once, and in Figure 5 we have the Add Procedure window. will

open. Type "y" in the "Name" field of the window and select "Function" from the "Type" type and click "OK"

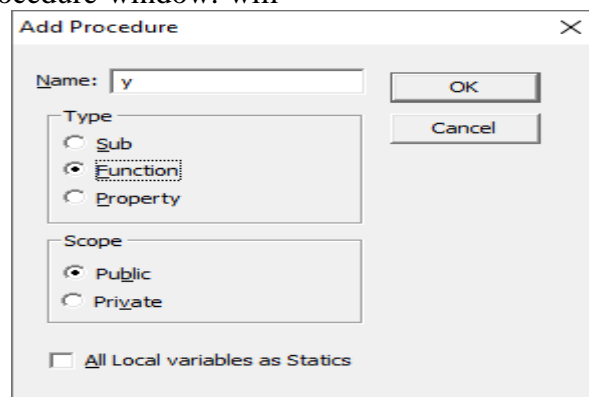


Figure 5.

Example:

$$y=5*x^2+4$$

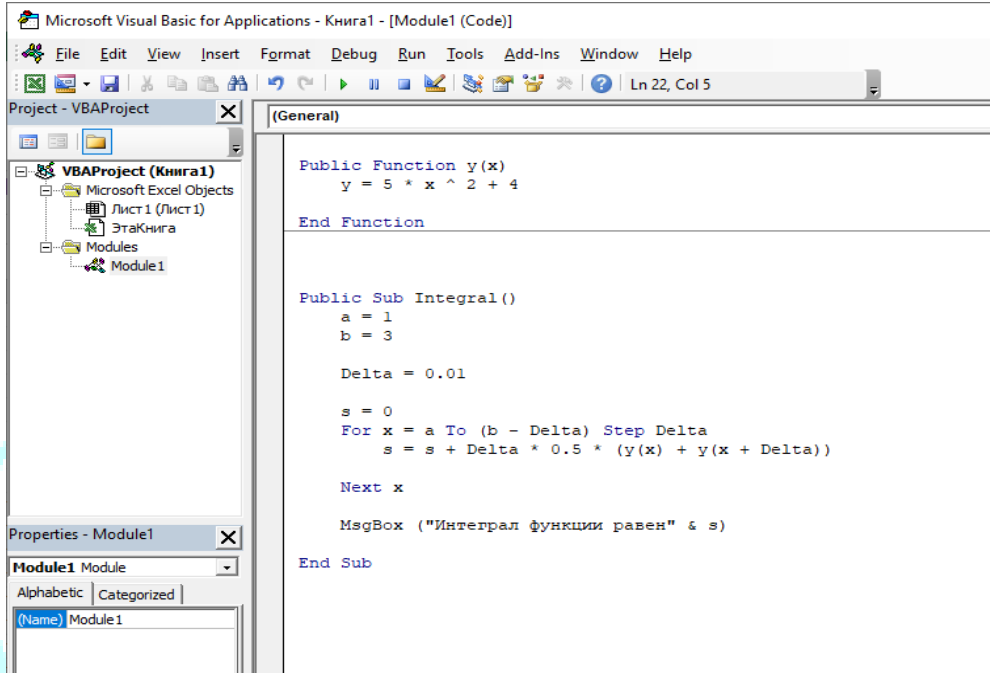


Figure 6.

As shown in Figure 6, we introduce the exact integral example given.

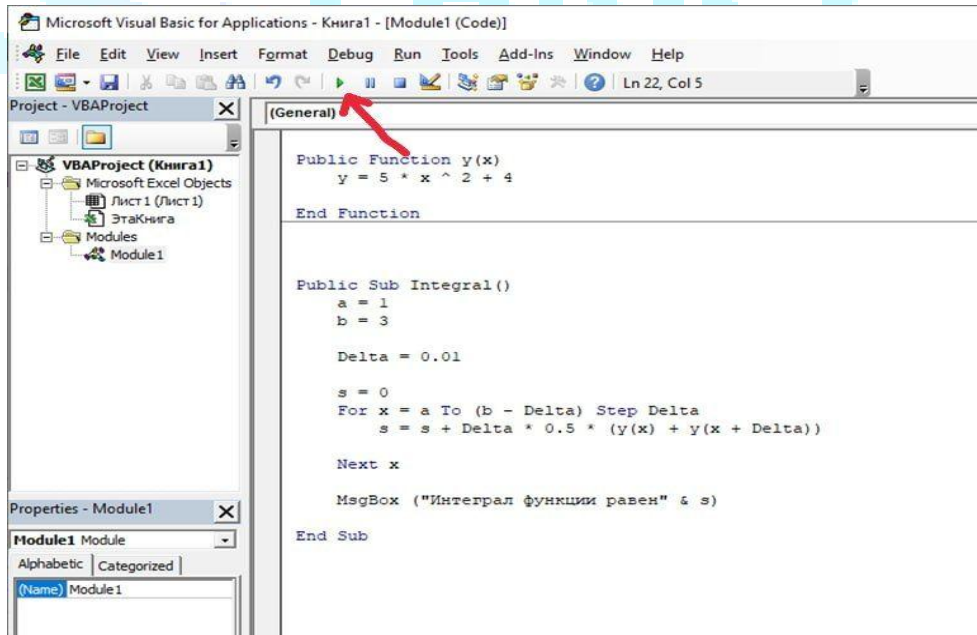


Figure 7.

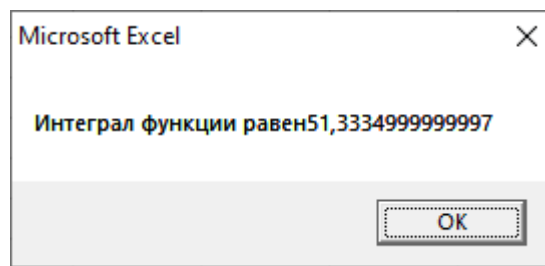


Figure 8.

As shown in Figure 7, even if the Run Macro key is pressed or the (F5) key is pressed, the integral result is displayed in Figure 8.

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