

## Equation editor

In the Word editor, you can edit complex (multi-story) equations. In addition to ordinary operators, they also contain unusual symbols and characters. The equation created with it is inserted into the document as an object that can be scaled or surrounded with text.

To start the equation editor, place the cursor where you want the formula to be placed and choose the menu option **Insert - Equation**. A new tool panel and an edit field will appear. Constructing the equation takes place in the edit field using the keyboard and appropriate tools from the panel. After editing the formula, to return to the document, click in the area outside the edit field.

Here are some examples of formulas created with the equation editor:

$$\{S_{ij}\} = \begin{vmatrix} 1 & 0 & 1 & 0 & 1 \\ 2 & 2 & 3 & 0 & 3 \\ 1 & -2 & -2 & 2 & 1 \\ 4 & 1 & 1 & -3 & 5 \\ -1 & 0 & 0 & -2 & 2 \end{vmatrix} \rightarrow Det\{S_{ij}\} = \sum_{i=1}^5 \prod_{i=1}^5 S_{ij}$$

$$f = \exp \left( -\frac{3E_r}{2k\theta} \left[ 1 + 4 \left( \frac{T}{\theta} \int_0^{\frac{T}{\theta}} \frac{x dx}{e^x - 1} \right) \right] \right)$$

$$M(a, b) = \sqrt[3]{\frac{\Gamma(b)}{\Gamma(b-a)\Gamma(a)}} = \begin{cases} 1 & \text{when } a > 0, b < 0 \\ 0 & \text{when } a > 0, b > 0 \\ \infty & \text{when } a < 0, b < 0 \end{cases}$$

$$I[S, T] = \frac{\Gamma}{2\pi} \int_{-\infty}^{\infty} \frac{dE}{E^2 + \Gamma^2/4} \exp \left[ -T \frac{\Gamma^2/4}{(E-s)^2 + \Gamma^2/4} \right] \Rightarrow I[\infty, T] = 1$$

$$[-\Delta T_\omega] [\partial \log(r_\alpha T_\omega)] / \partial T_\omega \approx 1$$

## Tables and figures - inserting and formatting

A table consists of cells arranged in rows and columns that you can fill with text and graphics. Tables are often used to present information in an organized fashion, but there are a number of other uses for them as well. You can use them to align numbers in columns, then sort the numbers and run calculations with them. Tables also let you create interesting page compositions by arranging text and graphics within them.

To insert a table in the text, select the **Insert** command from the **Table** menu. Then the number of columns and rows is determined (e.g. 3 columns and 4 rows):

Class	Number of people	Number of people from outside the city
Ia	30	10
Ib	31	13
Ic	27	15

In order to improve the aesthetics, you can change the table appearance by selecting the appropriate options from the **Table tools**. A few moves and the table might look like this:

Class	Number of people	Number of people from outside the city
Ia	30	10
Ib	31	13
Ic	27	15

In scientific works, it is important to put signatures **ABOVE** the tables containing information about the data contained in the table. The signature is added with the **Insert signature** command available on the pop-up menu. Ultimately, the table looks like this:

*Table 1: Summary of the number of students and the number of commuters in the first grades*

Class	Number of people	Number of people from outside the city
Ia	30	10
Ib	31	13
Ic	27	15

Another common element of scientific texts are illustrations, diagrams or charts. To embed a graphic file in the text, click the **Picture** command from the **Insert** menu, and then select the appropriate image.

Using the appropriate functions from the **Picture** toolbar, we can adjust the appearance and positioning of our image in the text.

We should also not forget to add a caption explaining what is presented in a given picture. In accordance with the convention used in scientific works, signatures are placed **BELOW** the drawings. This option is available in the pop-up menu - **Insert signature**.

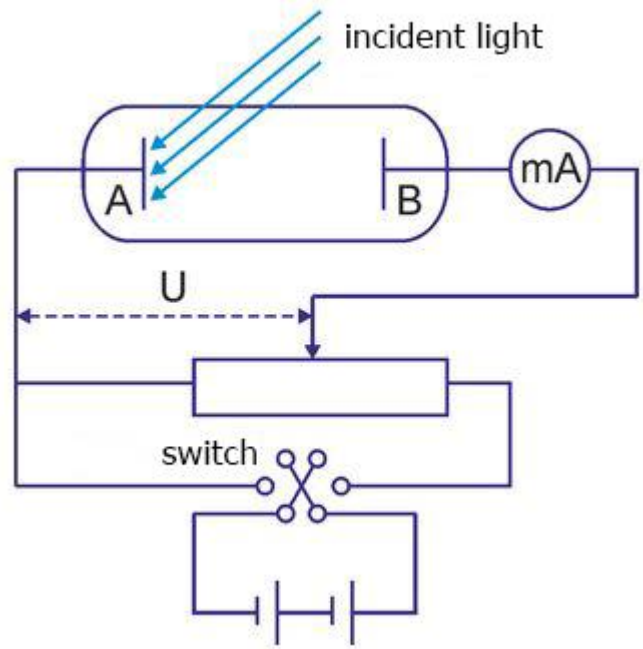


Figure 1: Diagram of an experimental setup