

As a result of a two-year MINERVA-SOCRATES program of seven European countries (for today all of them have become members of the EU) a new web-based mathematics knowledge base came into existence. The idea of the cooperation came from the NRICH of Cambridge University (<http://nrich.maths.org>), the SOLMU Finnish mathematical web-journal (<http://solmu.math.helsinki.fi/>) and the KöMaL (High-School Mathematics and Physics Journal) (<http://komal.hu>). All these Internet-based journals target pupils under the age of 18, search for talents using distance learning (competitions based on interesting problems and solutions submitted in e-mail), and share valuable pedagogical experience with the teachers. The NRICH program is a joint project involving the Mathematics and Education faculties in Cambridge University which is known worldwide. SOLMU was founded at the Helsinki University with the aim of renewing teaching of mathematics in Finland. KöMaL wants to use the English version of this unique 100-year old journal for secondary school pupils and teachers to reach readers and problem solvers in Europe over the Internet.

The thesaurus is accessible over the Internet by pupils, parents, teachers, translators and researchers from all countries of Europe and the world using their standard web browsers. This is now published at <http://thesaurus.maths.org> and contains mathematical terms in English, Danish, Finnish, Polish, Lithuanian, Hungarian, German, Spanish and Slovak. The terms can be displayed in one, two or all languages in parallel, including explanations, definitions, and – where possible – illustrations, animations and examples. It is more than a common lexicon: Our thesaurus explains the mathematical words and expressions in a wider context and in relation to other terms. The final version will allow search by topic as well. In the present version one can start from a keyword of a topic, and follow graphical links to cover the entire topic. It is a very important feature of the MMKB that it can be extended to cover more languages and new content.

Who and how can use the Internet-based mathematical thesaurus?

- Pupils if they did not understand something in the classroom; if they were ill when a topic was taught: then they can find and better understand certain mathematical expressions.
- Pupils studying abroad if they lack perfect knowledge of math terms in the foreign language: they can find translations and explanations.
- Teachers can use it when preparing for the class: in bilingual schools, or if they want to know how a certain topic is built and explained in other countries.
- It can be used as an example while teaching informatics.
- Anybody (adult, parent) can use it in home learning.
- Having extended MMKB with higher-level math content, it can be a useful tool for people interested in or using mathematics in their work.
- It can be used by universities in teachers' training and translator classes.
- It can assist anyone in learning languages or translating math texts from any language to any other language.

There are other uses of MMKB: One can find and download lots of curriculum elements from the Internet. Having installed the M-buttons module of MMKB, it is just a click away to get a detailed explanation of a word found in any mathematical text on the Internet (problems, text books, newspaper articles, monographs and dissertations).

Readers of KöMaL's Hungarian web pages can complement their knowledge while reading problems and articles if they use M-buttons to connect to the Hungarian or a foreign language version of MMKB. They can use the forum on our web page to share their questions, issues and ideas with colleagues or even scholars from another European country – this would extend their possibilities when they select a university for their further studies.

The more people use this math thesaurus, the more precise and higher quality its content will become. The thesaurus can be complemented with new words at any time, existing definitions can be improved and corrected, and multimedia content can be added.

Visit and explore <http://thesaurus.maths.org!>