

InMa program for learning math

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We are ready to hold workshop on which the completely original Russian program InMA will be demonstrated. It is created by OOO Deoma with highly dynamic interface. It is used by Russian teachers at school and pupils at home.

InMa program provides:

- an interactive 2D and 3D graphics (the bodies, such as pyramids, prisms, cones, their sections, touch),
- interactive graphics of almost all studied at school functions and methodology of the study of properties of functions with the use of these graphics,
- interactive algebra with step by step implementation of the most studied in the school changes, the exact solution of equations (in the form of the formula and record the results unrounded),
- interactive pictures and texts, with changeable parameters, interactive points and diagrams (limitation of motion by curve, by surface, rational coordinates).

InMA project is a tool for teacher, rather than its replacement. The sample program can be sent to experts for a preliminary study.

The demo materials can be found at <http://www.inma-cmd.ru>.

The program is currently only in Russian, but in the case of participating the conference part of it will be done in English.

InMa program allows creating electronic textbooks for systematic unified approach learning math. InMA project is created in collaboration of programmers, mathematicians and experienced teachers.

The InMA electronic textbook idea lies in the fact that the text of paper textbook becomes the basis, on which tasks of the same kind are created. A teacher does not require a mathematical scheme to serve as a basis of the lesson, or unchanged video. A teacher requires a kind of a half-stuff textbook where a teacher selects a necessary version from several others. Each file is provided with a text on methodology of teaching, where basic formulas, tasks and control elements of the file, recommended installations and terminology are indicated. Interactive InMA tools include contextually dependent library of deductive material and explications to the topic chosen ("Description"), contextually dependent library of formulae, definitions etc ("Vocabulary"), interactive geometric tools, teaching modules for teachers. InMA electronic text-book gives broader possibilities to teach pupils with different knowledge levels, thus the use of the same product on the one hand visualizes the teaching process in class and on the other hand gives talented pupils the chance of penetrating into mathematics as science. InMa program potential is so broad that it can hardly be exhausted in class. It gives both the teacher and its pupils the choice thus securing a creative approach to learning mathematics by turning it into an interesting game with wonderful interactive drawings. The program encourages the young people's extraordinary way of thinking, they are more interested in experimenting and investigating their ideas rather than in working within strictly set limits. Even more so such interactive math could turn into a favorite subject for the pupils having difficulties remembering formulae the knowledge of which is considered weak. For them a dynamic drawing that can be modified becomes the most important deductive method.