

Šárka GERGELITSOVÁ, Tomáš HOLAN

Charles University in Prague Faculty of Mathematics and Physics

Malostranské nám. 25, 118 00 Praha 1, Czech Republic

phone./ fax: +420 221 914 241 / +420 221 914 281 e-mail: Tomas.Holan@mff.cuni.cz

USING GEOGEBRA APPLETS FOR HOMEWORK ASSIGNMENTS

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Plane geometry construction problems are difficult for many students.

One of reasons is the fact, that process of solving and evaluation of this kind of tasks is time consuming and evaluation itself is a complicated problem. Consequently, students do not resolve as many problems as necessary to make them gain sufficient experience.

Automatic evaluation of this kind of tasks is able to speed up the process a lot, but due to its complexness it has been beyond the capabilities of known systems till now.

In the article we describe a new online system.

Students solve assigned tasks in Geogebra applets embedded in web pages and submit answers to server. Server evaluates them instantly.

The system is now used at all levels of school, mostly from high school to university.

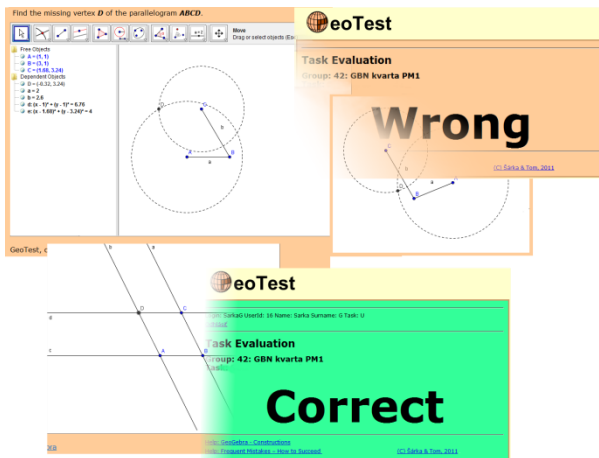


Fig. 1 Teacher's view on progress of his/her students

References:

- [1] Bonham, S. (2014). Physics applets for drawing. Retrieved March 31, 2014: <http://physics.wku.edu/~bonham/PADexamples>.
- [2] GeoGebra. (2014). Retrieved March 31, 2014: <http://www.geogebra.org>.
- [3] Geogebra filter. (2014). Retrieved March 31, 2014: http://docs.moodle.org/23/en/GeoGebra_filter.
- [4] Geogebra wiki: Manual: Embedding to cms, vle (moodle) and wiki. (2014). Retrieved March 31, 2014, from GeoGebra Wiki: Manual Web site: [http://wiki.geogebra.org/en/Manual:Embedding_to_CMS,_VLE_\(Moodle\)_and_Wiki](http://wiki.geogebra.org/en/Manual:Embedding_to_CMS,_VLE_(Moodle)_and_Wiki).
- [5] Geotest. (2014). Retrieved March 31, 2014: <http://geotest.geometry.cz>.
- [6] Moodle.org. (2014). Retrieved March 31, 2014: <https://moodle.org>.
- [7] Gergelitsová Š., & Holan, T. (2012). An automatic evaluation of construction geometry assignments. In A. Ravenscroft, S. Lindstaedt, C. Kloos, & D. Hernández-Leo (Eds.), 21st century learning for 21st century skills (Vol. 7563, p. 447-452). Springer Berlin / Heidelberg. Retrieved from http://dx.doi.org/10.1007/978-3-642-33263-0_41 (10.1007/978-3-642-33263-0_41)
- [8] Valiente, J. F., & Téllez, S. A. (2012). geogebra moodle filter. Retrieved March 31, 2014: <http://docs.moodle.org/19/en/mod/geogebra/mod>.