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Abstracts of Short Communications and Posters

Section:

18. Teaching and Popularization of Mathematics

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Al Sijzi on problemsolving and creativity in elementary geometry

Al Sijzi was a Persian mathematician who lived some 1000 years ago in Sijistan (today Iran resp. Afghanistan). He wrote a "Polya-like" book on mathematical heuristics and discussed many geometric problems. Some of these might be suitable to foster heuristic thinking and creativity of junior high school students. We discuss some examples related to the Pythagorean theorem. Possible generalizations, variations (conjectures)as well as some educational experience will be presented. Softwaretools will be used as an additional help to explore this problemfield. Ref. J. P. Hogendijk, Al-Sijzi's Treaties on Geometrical Problem solving. Fatemi Publ. & co. Tehran 1996.