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Krystyna Kuperberg* (kuperkm@auburn.edu), 221 Parker Hall, Mathematics, Auburn University, Auburn, AL 36849. *Teaching proving techniques using MIZAR proof checker.*

Proof checkers are computer programs that verify proofs written in a formal language that is very close to the language commonly used by mathematicians. The checkers provide a perfect tool for introducing students to the rigor of mathematical thinking. This talk will describe how one of the first proof checkers, MIZAR, was used in a classroom setting. Students wrote a detailed proof and checked its validity by formalizing the expressions in preparation for computerized verification. MIZAR-based theorem proving courses in logic, set theory, topology, algebra, and other areas of mathematics could be easily designed for various levels of undergraduate instruction. (Received September 24, 2012)