1096-M5-160 **John C Miller*** (xyalgebra@mindspring.com), 110 Riverside Dr. Apt. 14C, New York, NY 10024. *Beyond Short Answers: Improving Verbal Problem Software.* Preliminary report.

The Common Core Standards in Mathematics stress problem solving skills and applications, which in Basic Algebra implies verbal problems. Current verbal problem practice software too often accepts only a short final answer and too often responds to any incorrect short answer with a single stored solution, uninfluenced by the student's method.

Proper support requires accepting step-by-step solutions. Adequate response requires two types of algorithms. First, software must check each student step when entered for "correctness" in the appropriate sense, verbal, mathematical or both. Second, software must be able to suggest an appropriate next step, or type of step, at any intermediate point of any solution.

Such algorithms will be discussed and demonstrated, and implementation issues will be considered.

The presenter, who is retired and distributes his work at no cost to students and institutions, seeks discussions with both potential test sites and potential collaborators. (Received August 12, 2013)