

Meeting: 1003, Atlanta, Georgia, MAA CP A1, MAA Session on Getting Students To Discuss and To Write About Mathematics, I

1003-A1-807 **Curtis D. Bennett*** (cbennett@lmu.edu), Loyola Marymount University, Department of Mathematics, 1 LMU Drive, Suite 2700, Los Angeles, CA 90045, and **Jacqueline M. Dewar** (jdewar@lmu.edu), Loyola Marymount University, Department of Mathematics, 1 LMU Drive, Suite 2700, Los Angeles, CA 90045. *The role of 15-minute problems.*

We will discuss the use of "15-minute" problems in a freshman workshop class for mathematics majors. The 15-minute problem is an assignment in which each student is directed to spend 15 minutes working on a problem and to record her thoughts and attempts toward a solution even if an answer is not achieved. In the next class the problem is discussed either as a whole class or in small groups reporting out to the whole group. The problems themselves range from relatively straightforward to very difficult. Using these problems throughout the term, evidence from student interviews and focus groups shows that students learn the value of incorrect solutions for finding correct solutions, the role of discussion in investigating mathematical problems, and that all students can make positive contributions. Perhaps the most interesting result is the role that these problems appear to play in breaking down student beliefs about whether weaker students can make valuable contributions to a solution. (Received September 29, 2004)