Writing assignments in both Algebra & Trigonometry and Modern Geometry have been instrumental in helping to increase my students’ comfort level in communicating mathematics and the quality of that mathematical writing. Although these classes have different audiences, freshmen non-math majors versus junior level mathematics and mathematics education majors, growth could be seen in all of the students’ writing. The underclassmen’s writing became clearer and more concise while the upperclassmen’s writing became more reflective and analytical. Students were surveyed concerning their previous experiences, if any, with writing in mathematics. They were also asked how they felt about being required to complete writing assignments. Algebra work included Short Answer questions on homework and Writing Projects which entailed writing a one to two page solution to a problem. Geometry students completed lab reports, lab reflections, and oral reports. Reflections on graphing software included descriptions of the problems that students were encountering and what they believed the issues to be. Oral reports on geometric topics included descriptions of constructions and proofs. (Received September 27, 2005)