Homework has always been an integral part of mathematics courses. For years I believed that giving students careful/thoughtful/constructive feedback on homework papers was as vital as students doing the work. As it turns out, it’s not. A study was done to examine student performance by comparing two sections of the same course; one in which homework was turned in and graded and one in which no homework grading was done. Two sections of introductory statistics per semester for two semesters were used as experimental groups and two sections in one semester were used as a control group. In the experimental groups, one section turned in homework papers to be graded and the other section did not. In the control group, homework was graded for both sections. Various statistical tests were used to examine test averages, overall course averages, and withdrawal rates. It was found that there is no statistically significant difference between any of these features when homework is graded and when it is not. While I still believe that doing homework is vital, it seems as though giving feedback in the form of grading is not helpful to student performance. As a result I have started using online homework assignments; the feedback is instant, but not as thoughtful. (Received September 06, 2016)