1125-A5-2715 Taylor E Martin* (taylor.martin@shsu.edu). Justification and proof-writing in Calculus I through group homework assignments.

One of the biggest challenges for students in Calculus I is to adapt to the expectations and demands of collegiate level mathematics. Students who succeeded in earlier math classes through memorization and repetition are particularly challenged when faced with the abstract concepts encountered in Calculus I. My goal in crafting homework in Calculus is twofold: to provide scaffolding for students to develop a theoretical understanding of Calculus concepts and to incorporate good mathematical exposition, including justification and proof when appropriate. I achieve these goals by creating weekly homework sets that students work on in groups of 3-4, beginning in class and finishing outside of class. In this talk, I will share examples of questions that promote abstract thought, examples of student work that demonstrates this conceptual understanding, and discuss student attitudes and feedback on this particular method of homework from several semesters of data. I will discuss ways in which group assignments invalidate googled solutions and ease the grading burden for the instructor. Finally, I will discuss pitfalls I have encountered and ways in which to avoid them. (Received September 20, 2016)