1116-P1-1286 Ahmed A Benkhalti* (benkhaaa@nmsu.edu), John Selden and Annie Selden. Proof Frameworks – A Way to Get Started on Writing Proofs.

Many mathematics departments have instituted transition-to-proof courses for second semester sophomores to help them learn how to create proofs in order to prepare them for proof-based courses in their junior and senior years. It is our understanding that now many community colleges do not offer such courses, but may want to begin doing so. We have developed a way of getting students, who often stare at a blank piece of paper not knowing what to do, started on proof writing. This is the technique of writing proof frameworks, based on the logical structure of the statement of the theorem and associated definitions. Often there is both a first-level and a second-level of a proof framework. We will discuss how we came to the idea of proof frameworks and demonstrate the writing of several proof frameworks. (Received September 18, 2015)