Bernd S. W. Schroeder* (schroder@coes.LaTech.edu), Program of Mathematics and Statistics, Louisiana Tech University, Ruston, LA 71272. (How) Can We Teach Proofs? A Classical Approach.

We will briefly make a case that the answer to "Can we teach proofs?" is "yes" as well as "no." Subsequently, we will outline a classical approach that involves students in proof writing by starting with natural questions, such as, "Why can we not divide by 0?" or "Why are financial internet transcations secure?" These questions lead to the construction of the familiar number systems. We will also address relevant questions that should be asked before teaching a first or early proof class, as well as mathematical and "human resource" aspects of fostering proof writing abilities. (Received August 19, 2010)