1035-V1-1716   **Daniel J Teague*** (`teague@ncssm.edu`), NC School of Science and Mathematics, 1219 Broad Street, Durham, NC 27705. *Graph Theory as an Introduction to Proofs Course for Post Calculus High School Students.*

To learn to write proofs, students need a topic that serves as a vehicle for developing the necessary concepts and techniques. Many introduction to proofs course use simple number theory or problems from analysis for their content. Graph theory serves this purpose particularly well. As an introduction to proofs course, graph theory offers many advantages to the beginning mathematician. Students can draw pictures of their conjectures. This allows you and them to spend as much time creating conjectures as creating proofs of someone else's well formed conjectures. It allows students to focus the importance of setting the right conditions for their theorems gives them experience with strengthening or weakening those conditions and determining the resultant effects on their conclusions. It allows them to behave like mathematicians at an early age and in a controlled environment. (Received September 20, 2007)