

1116-Q6-432      **Eyob Demeke\*** ([esg34@wildcats.unh.edu](mailto:esg34@wildcats.unh.edu)), 33 Academic Way, Durham, NH 03824, and **David Earls**, 33 Academic Way, Durham, NH 03824. *Why do mathematicians present proofs? A case study of introductory abstract algebra and real analysis course.* Preliminary report.

Proofs are essential to communicate mathematics in upper-level undergraduate courses. In an interview study with nine mathematicians, Weber (2012) describes five reasons for why mathematicians present proofs to their undergraduate students. Following Weber's (2012) study, we designed a mixed study to specifically examine what mathematicians say undergraduates should gain from the proofs they read or see during lecture in introductory abstract algebra and real analysis. Our findings suggest that: (i) A significant number of mathematicians said undergraduates should gain the skills needed to recognize various proof type and proving techniques, (ii) consistent with Weber's (2012) findings, only one mathematician said undergraduates should gain conviction from proofs, and finally (3) some mathematicians presented proof for reasons not described in Weber's (2012) study such as to help their students develop appreciation for rigor. (Received September 01, 2015)