Collaborative peer review between two IBL number theory courses

Joint Mathematics Meetings
Boston, MA, January, 2012

Dana C. Ernst*, Plymouth State University
Andrew Schultz, Wellesley College
Angela Hodge, University of Nebraska at Omaha

Abstract: In the spring of 2011, D.C. Ernst (Plymouth State University) and A. Schultz (Wellesley College) chose to adopt an inquiry-based learning (IBL) approach in their number theory courses at their respective universities. Two times during the semester, students in each class submitted proofs of 2–3 theorems to be peer reviewed by students in the other class. Each student was then responsible for typing up an anonymous and formal referee report of the submitted theorems, which were then returned to the respective students. Ernst and Schultz, together with mathematics education specialist A. Hodge (University of Nebraska at Omaha) developed a pre- and post-test survey to study the impact of this form of peer review, as well as student perception of the effectiveness of IBL, in general. In this talk, we will relay the similarities and differences between the approaches to IBL in each number theory course, describe the details of the peer review exercise, and discuss the results of the survey as it relates to peer review.