

1125-P1-2750 **Tom Langley*** (langley@rose-hulman.edu). *The probability that $ab = ba$ and other adventures in commutativity in finite groups.* Preliminary report.

How close to Abelian can a non-Abelian group be? This question is the jumping-off point for an investigation into the structure of finite groups. We'll discuss a hands-on, discovery-based approach that lets students gather computer-generated data using GAP, conjecture wildly, and thusly armed embark on a journey through the lands of subgroups, centers, centralizers, and conjugates. We'll also discuss several generalizations and open questions. (Received September 20, 2016)