

1135-O5-3137 **Tom Edgar*** (edgartj@plu.edu), Mathematics Department, Pacific Lutheran University, 12180 Park Avenue S., Tacoma, WA 98447. *An inquiry-based approach to elementary number theory via proofs without words*. Preliminary report.

We discuss the use of “proofs without words” as a device to encourage student exploration of number theoretic ideas. In particular, we suggest the process of removing theorems from published proofs without words and guiding students to discover the theorem and its proof by investigating the relevant picture. We will demonstrate this idea with a few careful examples and describe our use of this technique, which can be adapted to introduction to proofs courses or courses investigating elementary number theory. (Received September 26, 2017)