1154-VP-2212   **Zechariah Hazel** and **Josh Laison***, Mathematics Department, Willamette University, Salem, OR 97301, and **Allison Kerkhoff**. *Stamping numbers of graphs.* Preliminary report.

We present research in graph theory done as part of an interdisciplinary collaboration with students of mathematics and art. For a graph G, we say a *stamp* of G is a minimal cycle in G. We distinguish some of the stamps of G as labeled and the rest as unlabeled, and ask for the smallest number of labeled stamps needed to remove the symmetries of G, or equivalently, to identify every vertex of G unambiguously in terms of the labeled stamps. This smallest number is the *stamping number* of G. We find stamping numbers of complete graphs and some circulant graphs. We'll also show some of the work from our group art exhibit. (Received September 17, 2019)