1105-11-202 **Cam McLeman*** (mclemanc@umflint.edu). *Cohen-Lenstra Partitions and Class Groups of Quadratic Imaginary Number Fields.*

We introduce the notion of a Cohen-Lenstra partition of a natural number, and use the Cohen-Lenstra heuristics to interpret results about these partitions in the context of ideal class groups of quadratic imaginary number fields. In particular, our results imply, under these same heuristics, that most finite abelian p-groups do not appear as such a class group. We further conjecture that for p odd, no elementary abelian p-groups of rank at least 3 so appear. (Received September 19, 2014)