For any \( n > 2 \), the Cohen-Lenstra heuristic predicts how the \( n \)-torsion of the class group of \( K \) is distributed as \( K \) varies in the family of imaginary quadratic fields. These predictions have been partially verified for 3-torsion and fully verified for 4-torsion but were previously unverified for all higher torsion groups. In this talk, we will give a new approach to verifying the heuristic for 4-torsion that allows us to also verify it for 8-torsion, 16-torsion, etc. (Received September 24, 2018)