1135-O5-736   **Jeffrey Hatley*** (`hatleyj@union.edu`). *Heads or tails? Coin-flipping with elementary number theory.*

A standard first course in elementary number theory usually covers the Chinese Remainder Theorem and quadratic residues. We begin by explaining a well-known method of "cryptographic coin-flipping" that relies on these two topics. After this, we describe a classroom assignment that gets students to perform some "coin flips" with their peers via email, and we discuss the challenges encountered in past implementations of this assignment. (Received September 13, 2017)