

**Homework 7**  
**for Janet Vassilev's Math 319 course**

Do problems 4.1, 4.2, 4.3

- (A) Find all the quadratic residues modulo 13.
- (B) If  $a = 15$  and  $p = 23$ , express  $\{a, 2a, \dots, \frac{p-1}{2}a\}$  in the interval  $(-\frac{p}{2}, \frac{p}{2})$  and find  $\nu$  to compute  $\left(\frac{15}{23}\right)$ .
- (C) Find the parity (odd or even) of integers in  $(-\frac{5}{3}, \frac{29}{9})$ .