

Inverses

Austin Farrar

April 4, 2019

State any patterns you notice relating the number of quadratic residues in Z_p to the value of p .

When looking at the quadratic residues of Z_p , one pattern I noticed is that the number of quadratic residues of each prime number is just over half of the number. So for 11, the number of residues is 6 and for 23 the number of residues is 12.

State any patterns you notices relating whether $1 \in Z_p$ is a quadratic residue to the value of p .

When looking at the quadratic residues that include -1, i found that however many times "true" showed up, "false" showed up the same number of times.