

Problem Set 8

November 4, 2024

Problem 1. Let p be an odd prime. Prove the following assertion: if $p \equiv 2 \pmod{17}$, then 17 is a quadratic residue modulo p .

Problem 2. Let p be an odd prime and $p \neq 5$ and A be some give number. Suppose that p divides $A^2 - 5$. Show that $p \equiv 1 \pmod{5}$ or $p \equiv 4 \pmod{5}$.