
OMAR KIHTEL, Brock University

Denominators of algebraic numbers in a number field

For any algebraic number γ , let $g(x)$ be the unique irreducible polynomial with integral coefficients, whose leading coefficient $c(\gamma)$ is positive, such that $g(\gamma) = 0$. Let $d(\gamma)$ be the denominator of γ . We fix a number field K , a prime p , a positive integer k and we study the set of values of $v_p(c(\gamma))$, when γ runs in the set of the primitive elements of K over \mathbb{Q} , such that $v_p(d(\gamma)) = k$. We connect this set to the splitting types of p .