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This talk will be about number fields N_1 and N_2 which have the same Galois closure over \mathbb{Q} . It was proved by Chinburg, Hamilton, Reid and Long that if there is a place v of \mathbb{Q} which splits into exactly $[N_i : \mathbb{Q}] - 1$ places in N_i for $i = 1, 2$ then N_1 and N_2 must be isomorphic. This implies that a number field N in which some place v splits of \mathbb{Q} into exactly $[N : \mathbb{Q}] - 1$ places is determined by its zeta function. In this talk I will discuss some other results of this kind, in which one puts a condition on how v splits in N_1 and N_2 and then deduces that N_1 and N_2 are extensions of small degree of isomorphic subfields. Some applications to zeta functions and to lengths of geodesics on arithmetic hyperbolic manifolds will be mentioned. (Received January 11, 2008)