

FACTORIZATIONS OF ALGEBRAIC INTEGERS

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ABSTRACT: Let K be an algebraic number field and $R \subset K$ an order. Then every non-zero non-unit element of R has a factorization into a finite product of irreducibles. All elements have unique factorization (i.e., R is a factorial domain) if and only if R is a principal order with trivial class group. We provide a survey on the arithmetic of non-factorial orders.