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Title:	On power basis of a class of algebraic number fields
Authors:	Jhorar, B. (/jspui/browse?type=author&value=Jhorar%2C+B.) Khanduja, S.K. (/jspui/browse?type=author&value=Khanduja%2C+S.K.)
Keywords:	Rings of algebraic integers Integral basis and discriminant Polynomial
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Citation:	International Journal of Number Theory, 12(8), pp.2317-2321.
Abstract:	Let $K=Q(\theta)$ be an algebraic number field with θ in the ring AK of algebraic integers of K and $F(x)$ be the minimal polynomial of θ over the field Q of rational numbers. In 1977, Uchida proved that AK=Z[θ] if and only if $F(x)$ does not belong to M2 for any maximal ideal M of the polynomial ring Z[x] (see [Osaka J. Math.14 (1977) 155–157]). In this paper, we apply the above result to obtain some necessary and sufficient conditions involving the coefficients of $F(x)$ for AK to equal Z[θ] when $F(x)$ is a trinomial of the type xn+ax+b. In the particular case when a=-1, it is deduced that $\{1,\theta,,\thetan-1\}$ is an integral basis of K if and only if either (i) p $\{0\}$ and p $\{0\}$ and p $\{0\}$ but of the polynomial of the type xn+ax+b. In the particular case when a=-1, it is deduced that $\{1,\theta,,\thetan-1\}$ is an integral basis of K if and only if either (i) p $\{0\}$ and p $\{0\}$ but of the polynomial ring is an integral basis of K if and only if either (ii) p $\{0\}$ and p $\{0\}$ but of K is an integral basis of K if and only if either (ii) p $\{0\}$ and p $\{0\}$ but of K is a polynomial ring in the province of K is a polynomial ring at the polynomial ring is a polynomial ring at the polynomia
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