

1078-11-226

**Cameron L Stewart\*** ([cstewart@uwaterloo.ca](mailto:cstewart@uwaterloo.ca)), Department of Pure Mathematics, University of Waterloo, Waterloo, Ontario N2L3G1, Canada. *Exceptional units and cyclic resultants.*

Let  $\alpha$  be a non-zero algebraic integer of degree  $d$  over the rationals. Put  $K = \mathbb{Q}(\alpha)$  and let  $O(K)$  denote the ring of algebraic integers of  $K$ . We shall discuss estimates for the number of positive integers  $n$  for which  $\alpha^n - 1$  is a unit in  $O(K)$  and for the largest positive integer  $n$  for which  $\alpha^j - 1$  is a unit for  $j$  from 1 to  $n$ . (Received December 09, 2011)