

On the Products of Consecutive Values of Polynomials

Erhan GÜREL ¹

¹ Department of Mathematics, Middle East Technical University, Northern Cyprus Campus,
Güzelyurt, Turkish Republic of Northern Cyprus
E-mail: egurel@metu.edu.tr

Abstract: This work is the continuation of the works to understand the powers of the prime factors of product of consecutive values of a polynomial. Here we prove that while the product $\prod_{k=1}^n (4k^4 + 1)$ becomes a square infinitely often as the integer n changes, the product $\prod_{k=1}^n (k^4 + 4)$ becomes a square only for $n = 2$.