

Addendum to the paper "On two theorems of Gelfond and some of their applications" (Acta Arith. 13 (1967), pp. 177–236)

by

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In the formulation of Theorem 15 (p. 232) occurs the product

$$\prod_{i=1}^{\infty} \left(1 - \frac{1}{u_i}\right), \quad u_1 \geq 3, u_{i+1} = u_i^2 - 2.$$

I have overlooked that already in 1929 A. Ostrowski [1] gave the value of this product as

$$\frac{\sqrt{u_1^2 - 4}}{u_1 + 1}$$

(i.e. formula (7.10)). Hence Theorem 15 takes the form:

THEOREM 15'. *If $f(x)$ is any polynomial of degree $\nu > 1$ with integer coefficients then*

$$\lim_{x \rightarrow \infty} \frac{\log q(f(x))}{\log x} \leq \begin{cases} \frac{1}{4}\sqrt{5} & \text{for } \nu = 2, \\ \frac{1}{4}\sqrt{21} & \text{for } \nu = 3, \\ \sqrt{(v-1)^2 - 4} & \text{for } \nu > 3. \end{cases}$$

Reference

- [1] A. Ostrowski, *Ueber einige Verallgemeinerungen des Eulerschen Produktes*, Verh. Naturforsch. Gesel. Basel 40 (1929), 153–214 or *Collected papers*, vol. 3, 352–413.