

Miyata's Euler function

(Miyata's Euler function φ_k)

Let p_1, p_2, \dots, p_r be different primes of x .

At this point, M.Miyata defined the following Eulert-like function.

$$\varphi_k(x) = x \prod_{i=1}^r \frac{1}{p_i} \max\{p_i - k, 1\}$$

The derived logarithmic function obtained from this function is then a function that establishes the Miyata-Yamashita theorem.