

**Zbl 617.10037**

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*On the normal number of prime factors of  $\phi(n)$ .* (In English)

**Rocky Mt. J. Math. 15, 343-352 (1985). [0035-7596]**

The authors prove that the number of prime factors (either distinct or counted with multiplicities) of Euler's function  $\phi(n)$  obeys the Gaussian distribution law. The normal order equals  $(\log \log n)^2/2$  and the standard deviation is  $3^{-1/2}(\log \log n)^{3/2}$ .

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Classification:

11K65 Arithmetic functions (probabilistic number theory)

11N37 Asymptotic results on arithmetic functions

Keywords:

Euler phi-function; number of prime factors; normal order; standard deviation