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Erdős, Paul; Shorey, T.N.

On the greatest prime factor of $2^p - 1$ for a prime p and other expressions. (In English)

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It is proved that for almost all primes p , the greatest prime factor of $(2^p - 1)$ exceeds $cp \left(\frac{\log p}{\log \log p} \right)^2$ where $c > 0$ is an absolute constant. The proof depends on Brun's Sieve method and Baker's theory on linear forms in the logarithms of algebraic numbers. Some results relating to the greatest prime factor of other arithmetic expressions are also proved.

Classification:

11N05 Distribution of primes

11B99 Sequences and sets

11B39 Special numbers, etc.