

On distribution of semiprime numbers

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Abstract

A semiprime is a natural number which is the product of two (possibly equal) prime numbers. Let y be a natural number and $g(y)$ be the probability for a number y to be semiprime. In this paper we derive an asymptotic formula to count $g(y)$ for large y and evaluate its correctness for different y . We also introduce strongly semiprimes, i.e., numbers each of which is a product of two primes of large dimension, and investigate distribution of strongly semiprimes. © 2014 Allerton Press, Inc.

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Keywords

distribution of semiprimes, factorization of integers, semiprime integer, strongly semiprime, the RSA ciphering method