

Arithmetic Properties of the Divisor Function

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Given a prime p , the p -adic valuation of a number x is defined as the highest power of p that divides x . In this talk, we will discuss the p -adic valuation of $\sigma(n)$, the sum of divisors of an integer n . We will present an explicit formula and some bounds will be discussed. This is joint work with Tewodros Amdeberhan, Victor Moll, and Diego Villamiza.