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Victor Moll*, Tulane University, Department of Mathematics, New Orleans, LA. *2-adic valuations of classical sequences: A collection of examples.*

Given an integer x and a prime number p , the p -adic valuation of x is the highest power of p that divides x . This talk presents a variety of examples showing that, given a sequence $x[n]$ of integers, the sequence obtained by taking the p -adic valuations of $x[n]$ presents interesting challenges. The list of examples include basic sequences in Number Theory such as factorials, binomial coefficients, Fibonacci numbers and others as well as sequences appearing in Combinatorics, such as the Stirling numbers and the ASM numbers counting the number of Alternating Sign Matrices. Interesting phenomena occur even at the most elementary level. The case of sequences coming from quadratic polynomials already illustrate them. (Received March 18, 2012)