1026-11-1 Florian Luca*, Universidad Nacional Autónoma de México. Values of arithmetic functions.

An arithmetic function is a function defined on the set of positive integers. Classical examples are the Euler function,

the sum of divisors function and the number of divisors function. In this talk, we will survey various old and new results related to the distribution of values of such functions, their popular values, their champions, as well as to the distribution of those positive integers satisfying certain equations involving such functions. Some questions involved are as old as Euclid and some are proposed for the first time in this talk.

The talk will be accessible to a general mathematical audience. (Received March 29, 2006)