VÎRGOLICI, Horia, *ON THE EXPONENTIAL DIOPHANTINE EQUATION*

Abstract: The aim of this paper is to give all nonnegative solutions (x, y, z) to the equation $2^x + p^y = 1009^z$, where p is a positive rational prime number with $3 \leq p \leq 997$ (167 equations)

Keywords: exponential Diophantine equation, Lebesgue-Nagell equation, Catalan equation