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Tewodros Amdeberhan, Department of Mathematics, Tulane University, New Orleans, LA 70118, **Luis A Medina**, Department of Mathematics, Rutgers University, New Brunswick, NJ 08854, and **Victor H Moll*** (vhm@math.tulane.edu), Department of Mathematics, Tulane University, New Orleans, LA 70118. *Asymptotics of the p -adic valuations of solutions of linear recurrences.*

Let p be a prime and Q a polynomial with integer coefficients. Define the sequence $x[n]$ by $x[0] = 1$ and $x[n] = Q[n]x[n-1]$. Under certain conditions on Q , the p -adic valuation of $x[n]$ grows linearly with n . The slope is related to the number of roots of Q in the p -adic ring $\mathbb{Z}[p]$. We present some conjectures on the corresponding error term. (Received September 14, 2008)