Stanford Undergraduate Mathematics Organization Colloquium

February 7, 2013

ZEROES OF LINEAR RECURRENCES

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Abstract: Let x_n be a sequence defined by a linear recurrence with integer coefficients. For which n is x_n equal to 0? I will discuss (and prove) the Mahler-Skolem-Lech theorem, which gives a partial answer to this question. I'll also discuss several other (open!) questions about zeroes of integer linear recurrences.