Title: A note on the arithmetic properties of Stern Polynomials

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We investigate the Stern polynomials defined by $B_0(t) = 0$, $B_1(t) = 1$, and for $n \geq 1$ by the recurrence relations $B_{2n}(t) = tB_n(t)$, $B_{2n+1}(t) = B_n(t) + B_{n+1}(t)$. We prove that all possible rational roots of that polynomials are $0, -1, -1/2, -1/3$. We give complete characterization of n such that $\deg(B_n) = \deg(B_{n+1})$ and $\deg(B_n) = \deg(B_{n+1}) = \deg(B_{n+2})$. Moreover, we present some results concerning reciprocal Stern polynomials.

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