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Title: On point modules

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We prove that (1) a free associative algebra has a faithful point module; (2) a graded algebra $A = F1 + A_1 + \dots$ over a field F , $|F| > n$, generated by the subspace A_1 and having the subspace A_1 nil of degree $\leq n$, does not have point modules. As a corollary we show that the polynomial algebra over the Lie algebra of the Grigorchuk group is not graded nil.

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