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Yellow-Brown Hackenbush

Yellow-Brown Hackenbush is a game played on a sum of strings whose branches are colored yellow or brown. In its "restricted" form, one player, named Left, at her turn, picks a bichromatic string and removes its highest yeLLow branch. Right, at his turn, picks a bichromatic string and removes its highest bRown branch. As in the well-known game of bLue-Red Hackenbush, all higher branches, being disconnected, also disappear. But in yellow-brown Hackenbush, unlike blue-red Hackenbush, all moves on monochromatic strings are illegal. This makes all values of yellow-brown Hackenbush all-small.

This paper presents an explicit solution of restricted yellow-brown Hackenbush. The values are sums of basic infinitesimals that have appeared in many other games found in Winning Ways and elsewhere.