Suppose we add laws to allow various operators to distribute over string join (semicolon). For example, if $i$ and $j$ are items and $s$ and $t$ are strings, then the laws

\[\text{nil} + \text{nil} = \text{nil}\]
\[(i; s) + (j; t) = i+j; s+t\]

say that strings are added item by item (a sum of strings is a string of sums). For example,

\[(2; 4; 7) + (3; 9; 1) = 5; 13; 8\]

What string $f$ is defined by

\[f = 0; 1; f + f_{1;\ldots;\infty}\]

The Fibonacci sequence $0; 1; 1; 2; 3; 5; 8; 13; 21; 34; \ldots$ usually defined as

\[f_0 = 0\]
\[f_1 = 1\]
\[f_{n+2} = f_n + f_{n+1}\]