Hash Code Example 4: Polynomial Accumulation

- **Horner's rule:**

  $p(a) = x_0 + a(x_1 + a(x_2 + \ldots + a\,(x_{n-2} + x_{n-1}a)\ldots)$

- Let a = 33
  - "top" = "t"+"o"*33+"p"*33²=116+111*33+112*33²=125747
  - "pot" = "p"+"o"*33+"t"*33²=112+111*33+116*33²=130099

- Algorithm:

  $p = x[n-1]$
  $i = n - 2$
  while $i \geq 0$ do
  $p = p*a+x[i]$
  $i = i - 1$