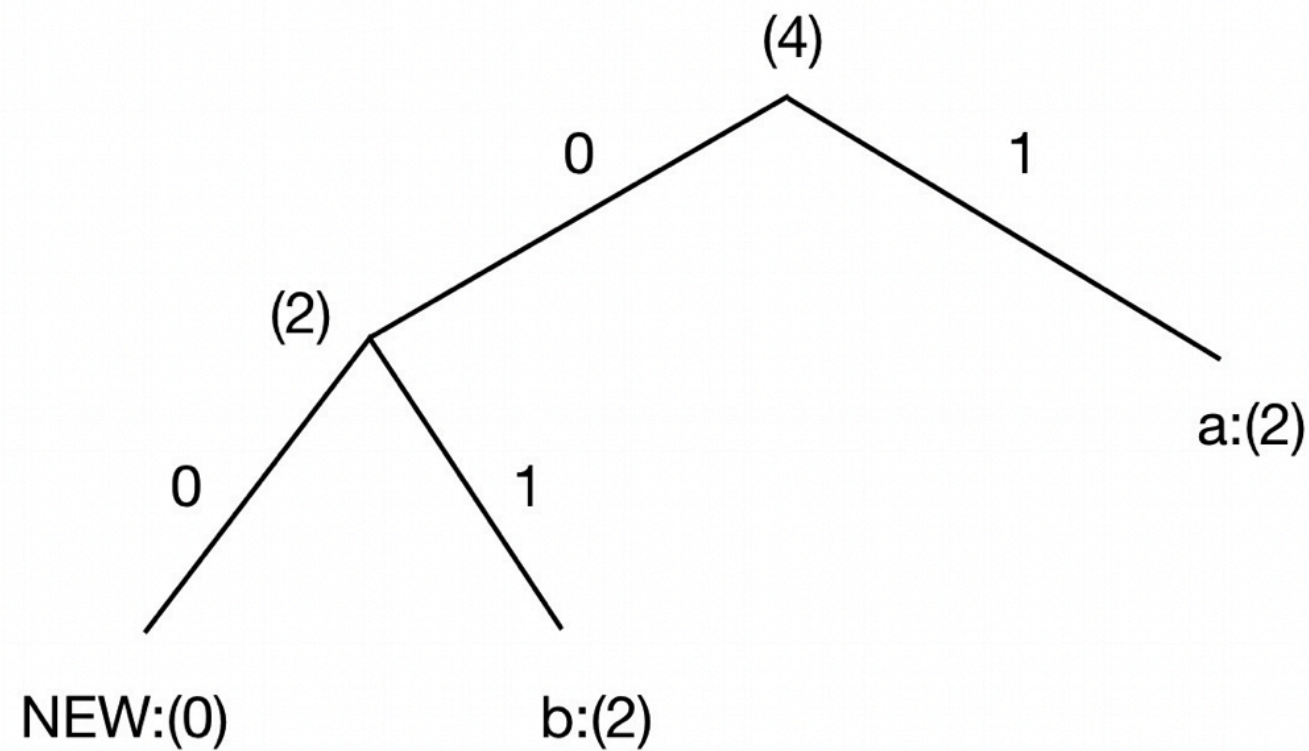
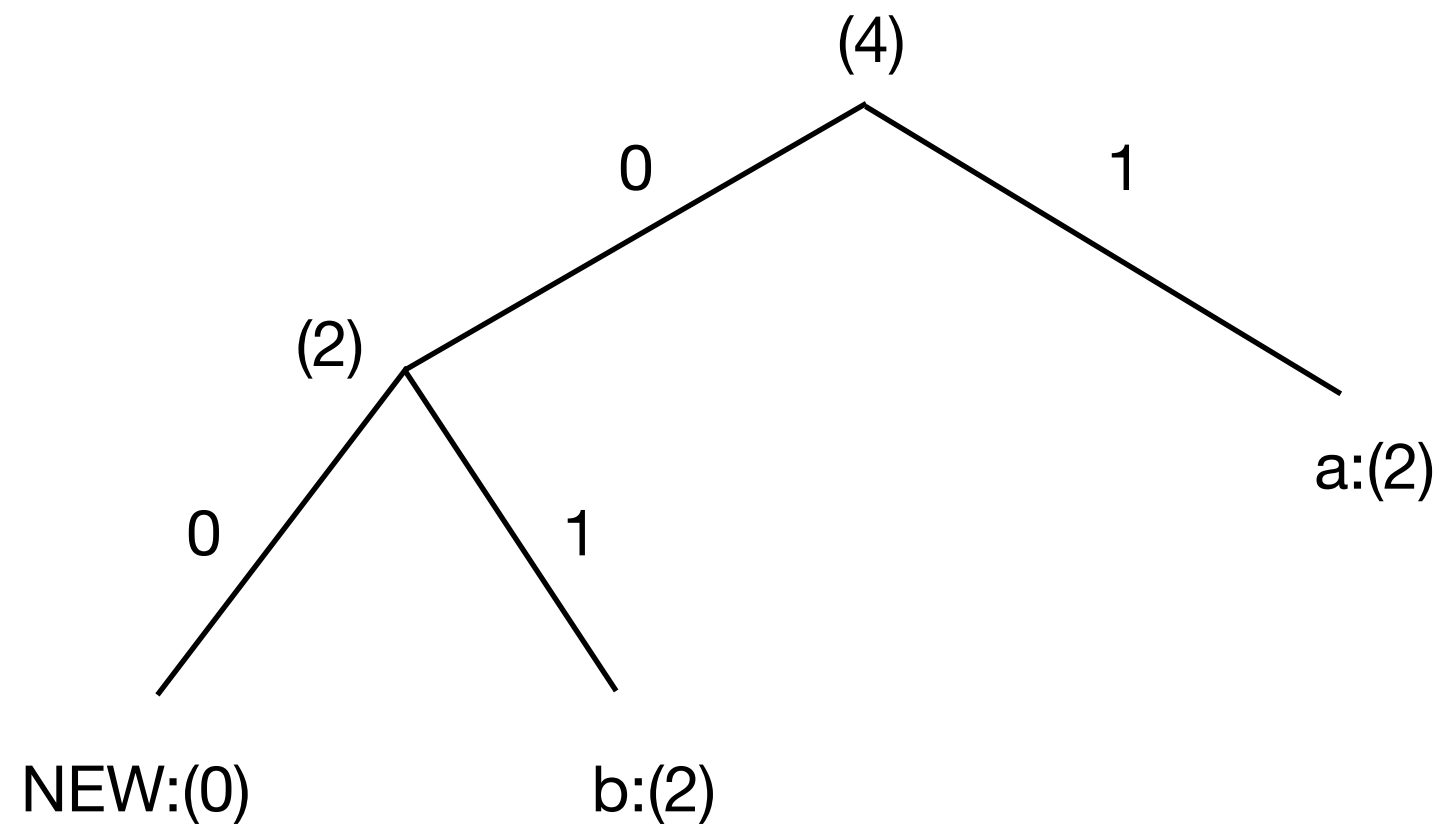


Adaptive Huffman Coding Exercise

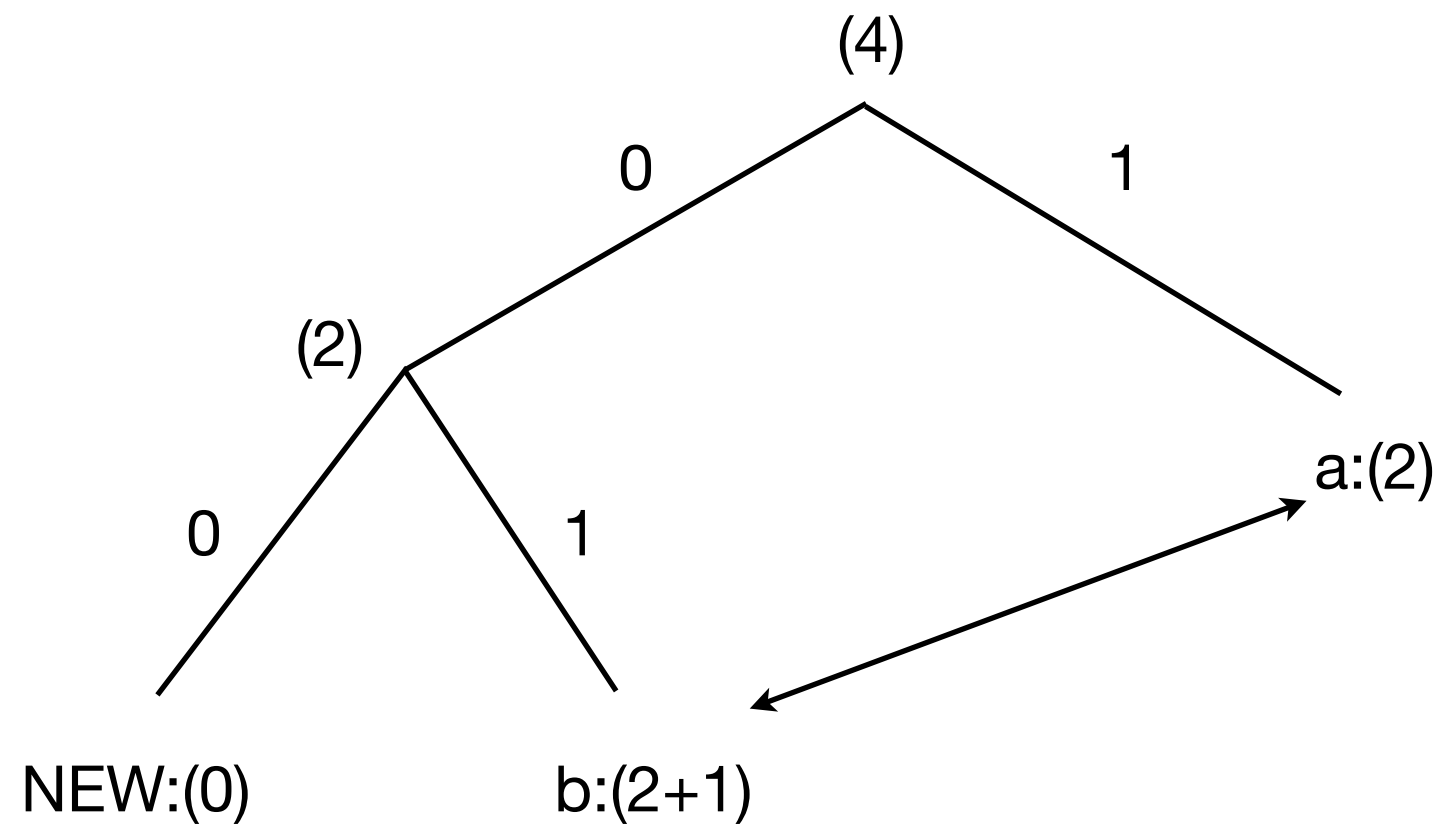
Assume that **Adaptive Huffman Coding** is used to code an information source S with a vocabulary of four letters (a, b, c, d). Before any transmission, the initial coding is $a - 00$; $b - 01$; $c - 10$; $d - 11$. As in the example illustrated in Figure, an **Adaptive Huffman Tree** is built after sending letters "aabb". After that, the additional bitstream received by the decoder for the next few letters is 01010010101. What's the additional letters received?



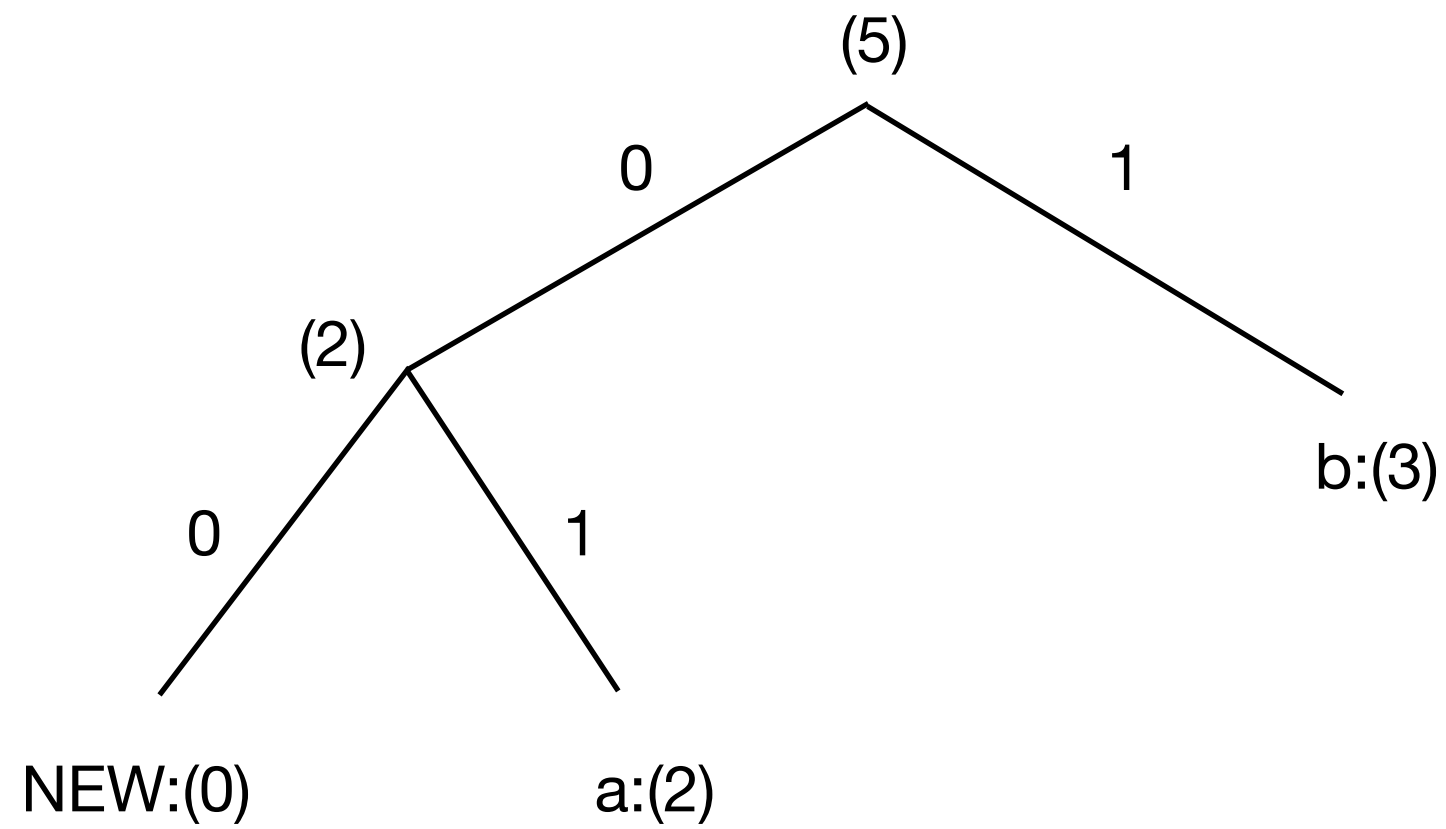
"aabb"



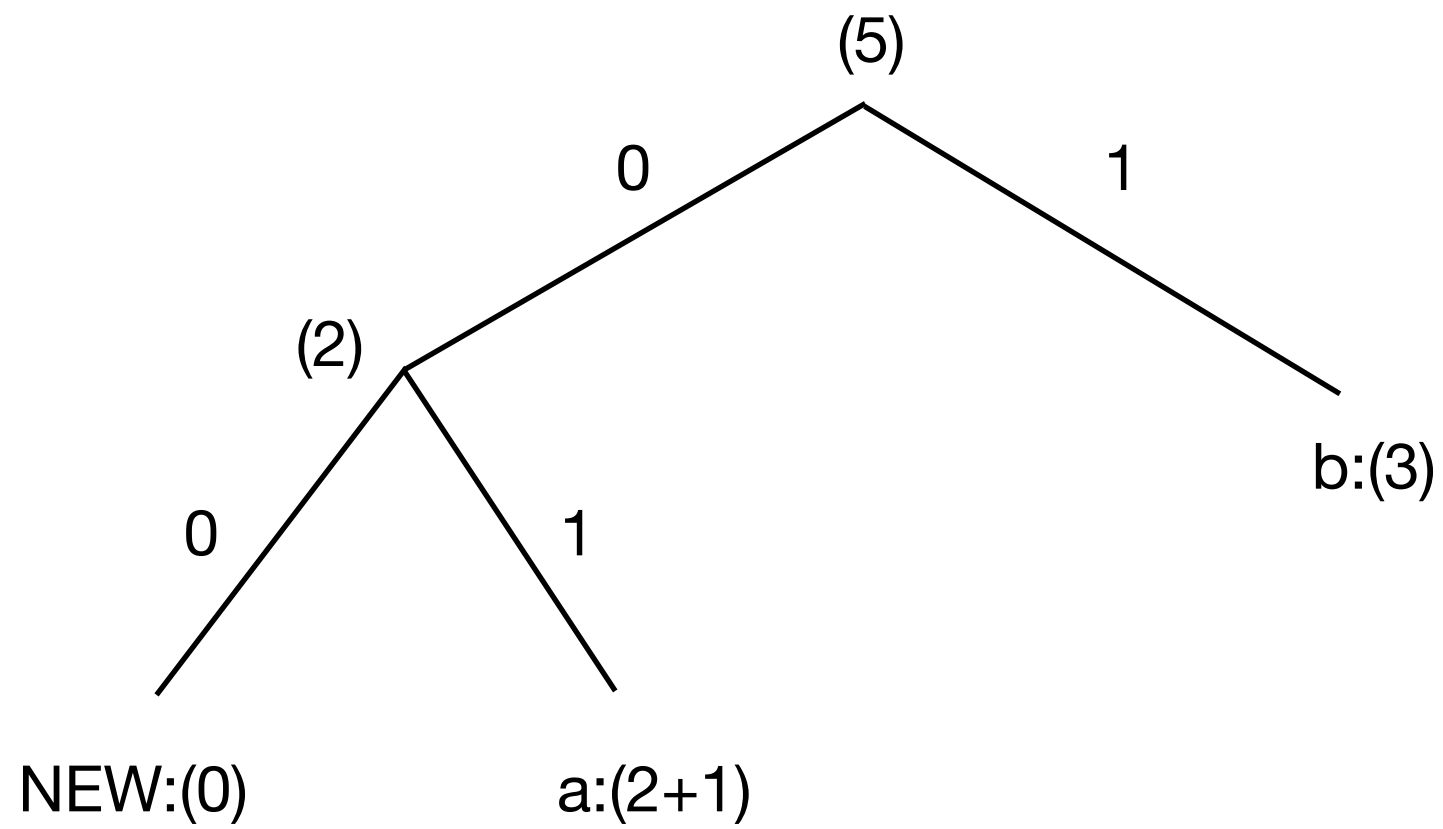
"aabb"



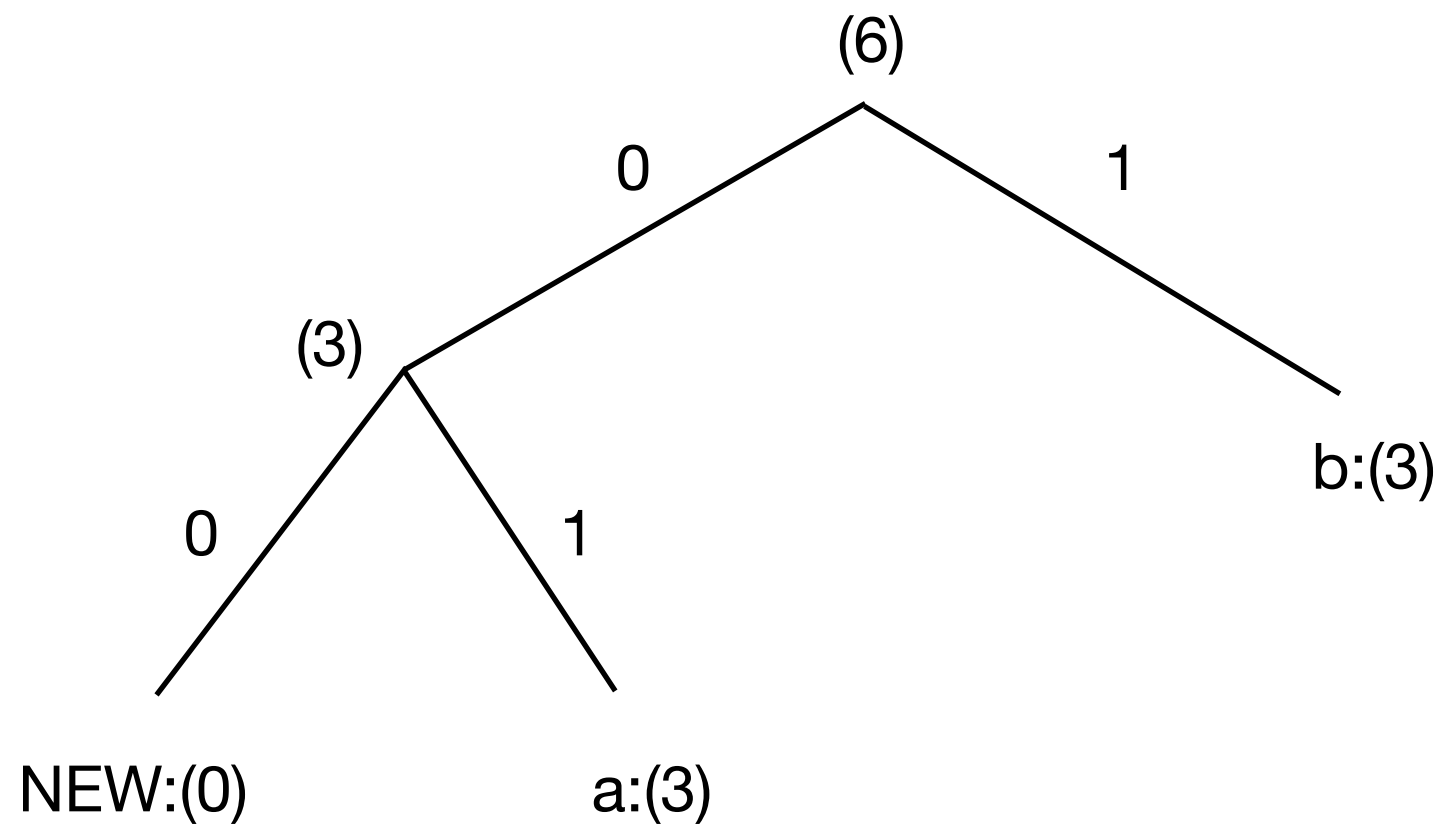
"aabbb" Step 1



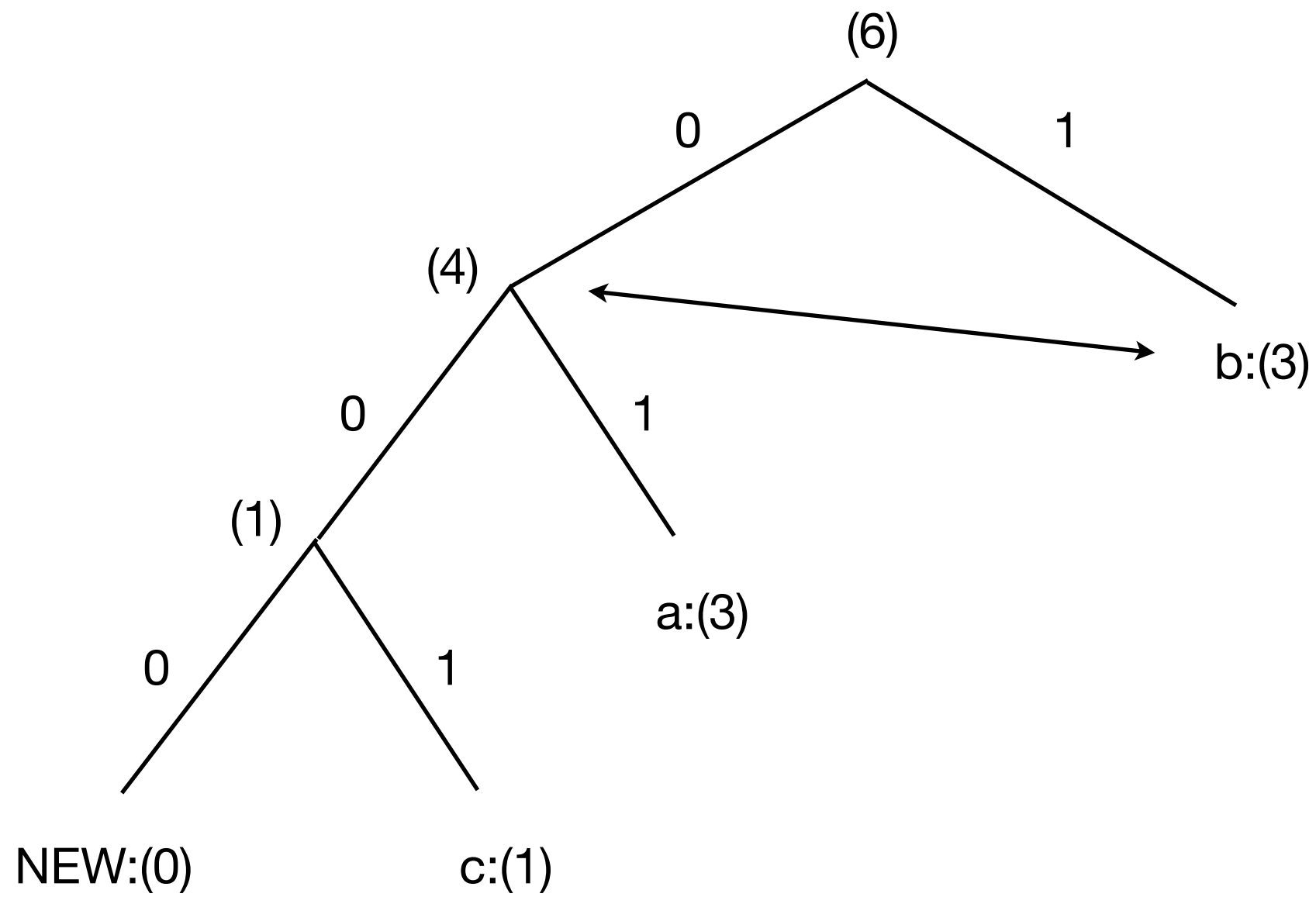
"aabbb" Step 2



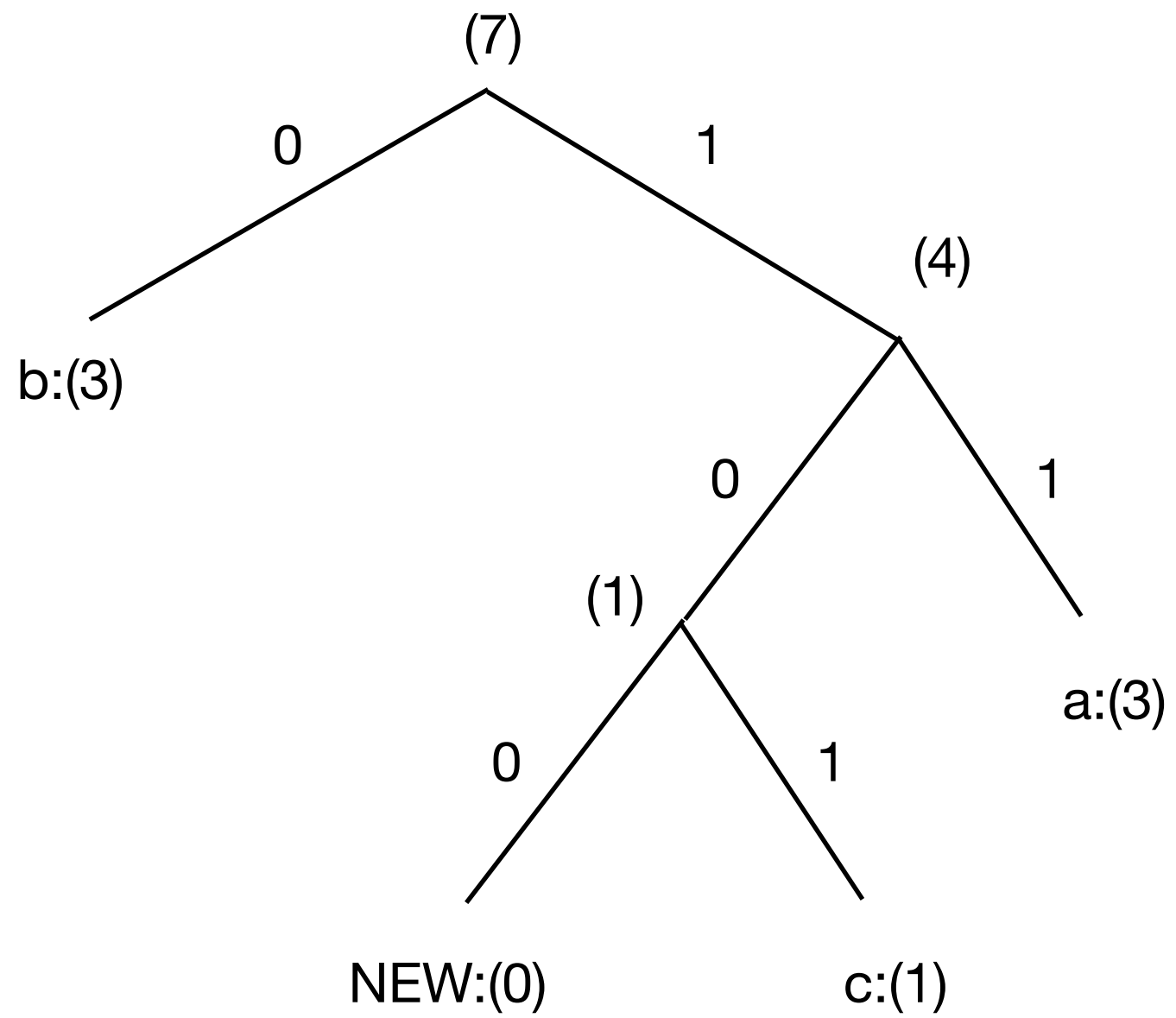
"aabbba" Step 1



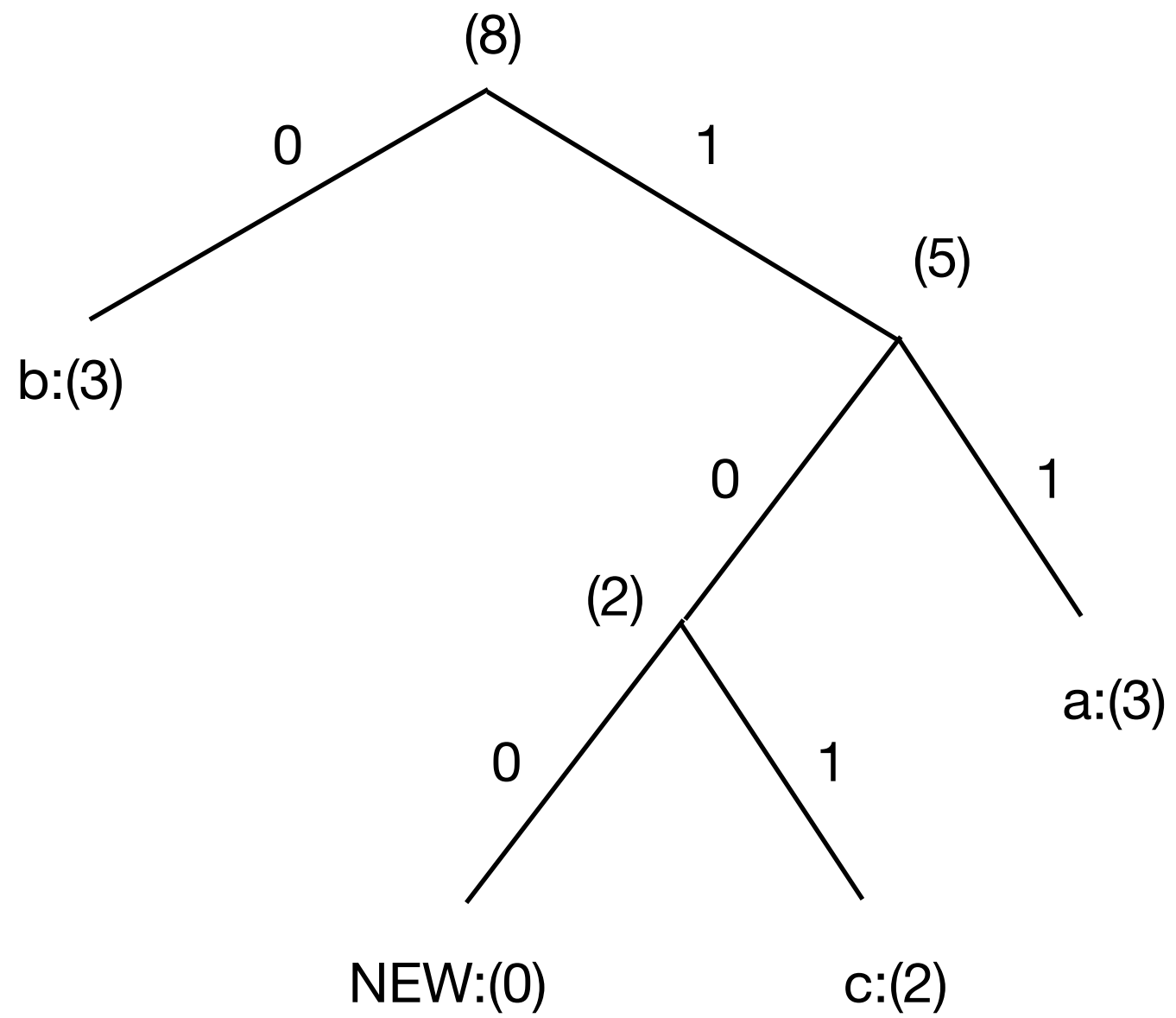
"aabbba" Step 2



"aabbac" Step 1



"aabbac" Step 2



“aabbacc”

Thanks