

HW 5 Solutions

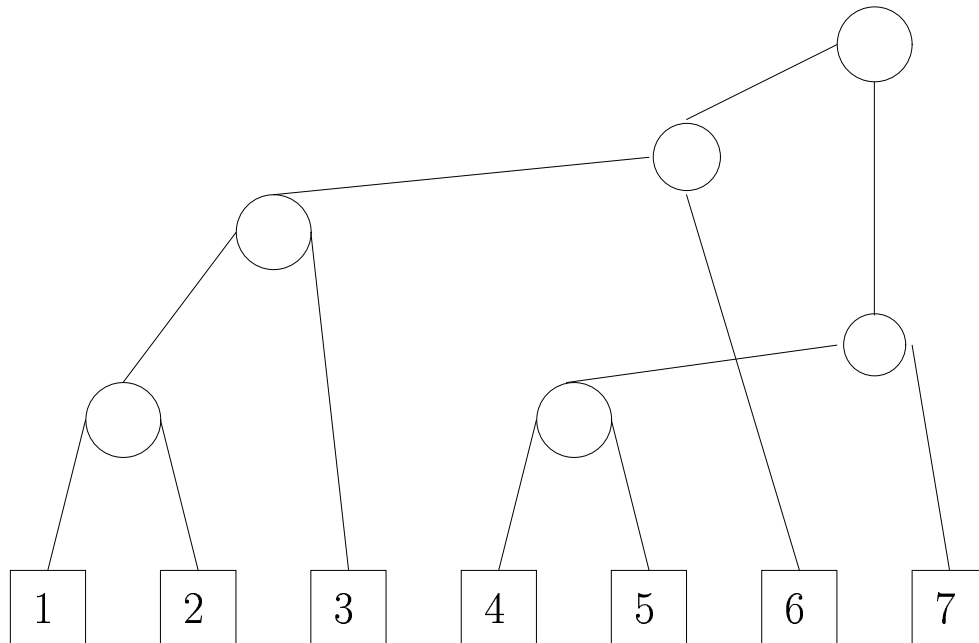
Hu, CSE 101, Fall 2002

part a

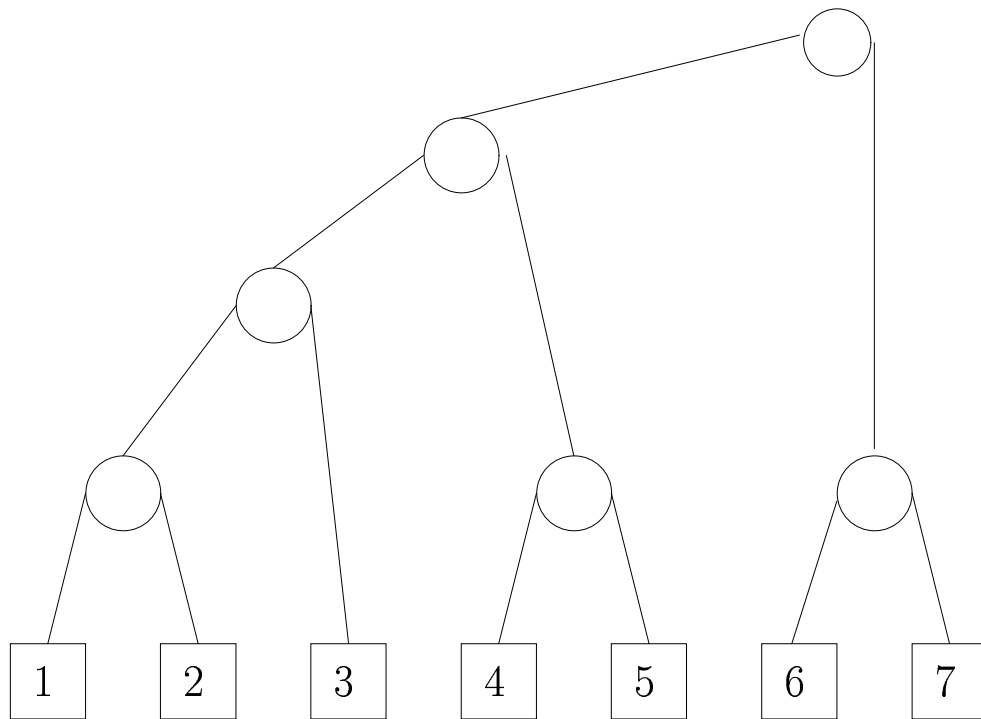
Here the problem asked you to run the Hu-Tucker algorithm on the following sequence:



First we look at the intermediate tree.

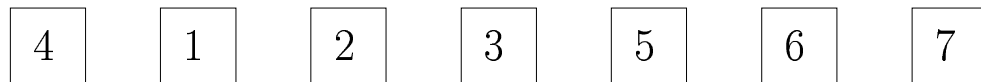


The solution is below. Notice that this solution is the same as that which would have been achieved with Huffman's algorithm. This is because the frequencies of the elements of the sequence are in increasing order.



Part b

Again the problem asked you to run the Hu-Tucker algorithm on the following sequence:



First we have the tree created by connecting the left-most minimum compatible pairs:

Now we show the tree created by connecting the left-most maximum depth pairs. Here we see that the solution is not the same as would have been achieved by Huffman's algorithm.

