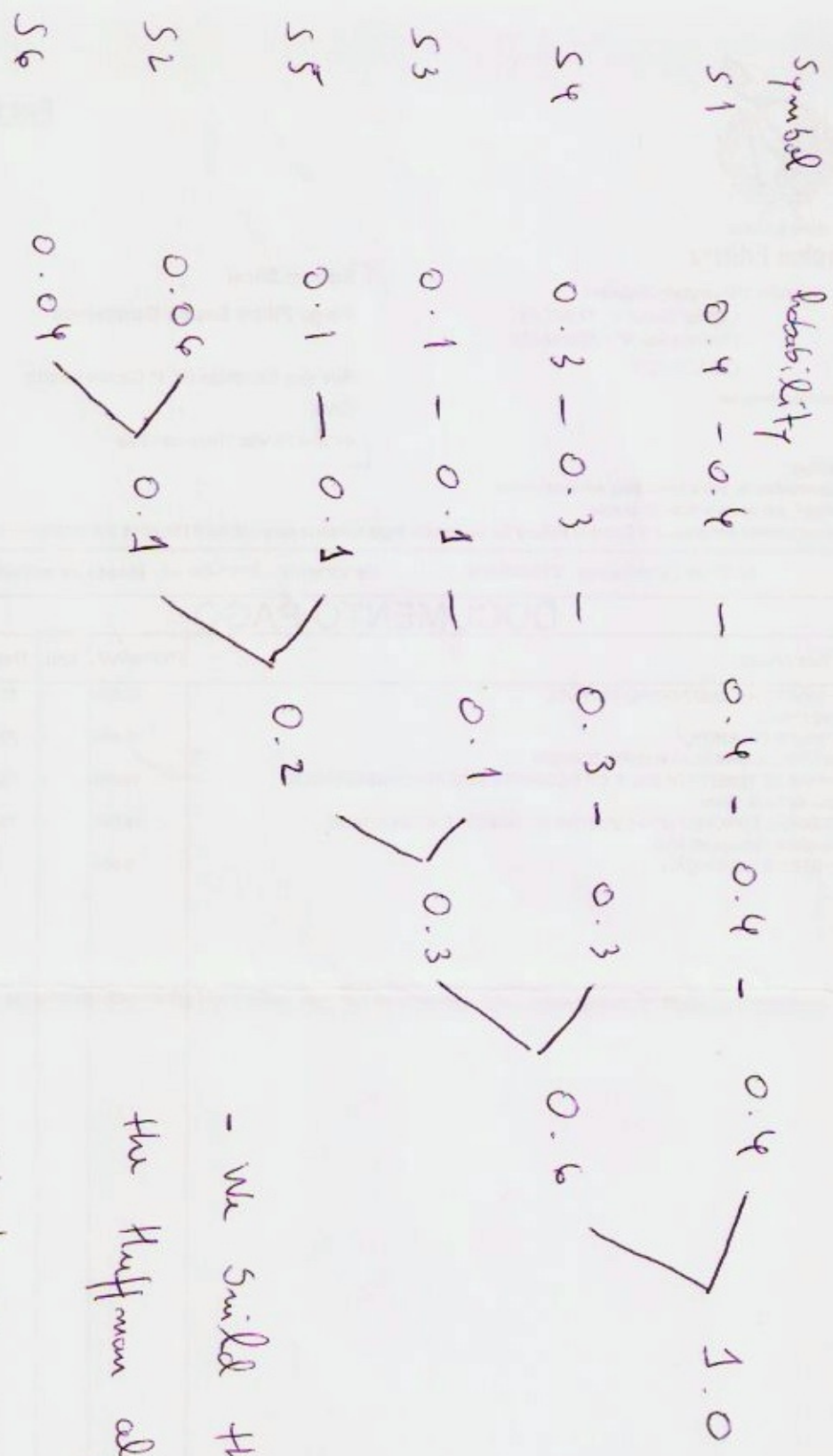


# Exercise 5.

5.1 we order the Table

by probability:

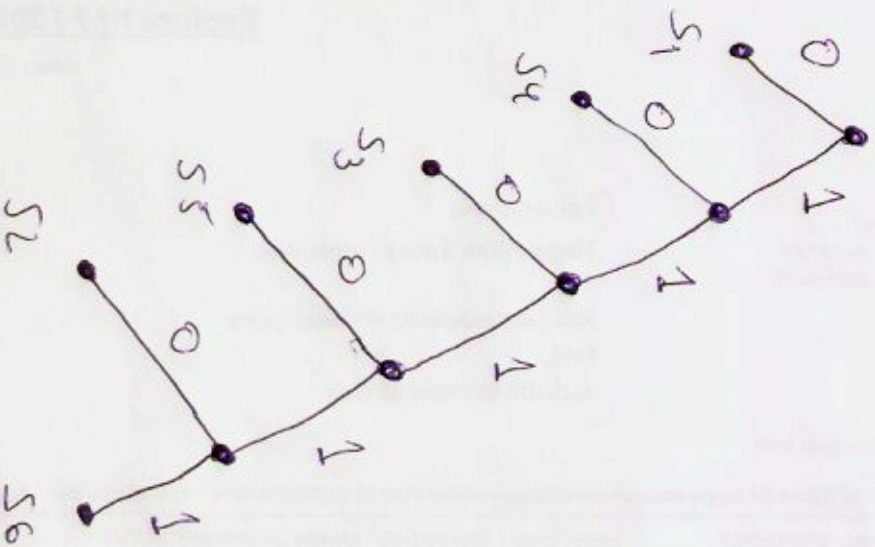


- We build the tree according to the Huffman algorithm.

- Next page we show the tree from a different view and get the codewords and codeword lengths.

-We build the Huffman tree below, see Fig. 1

Fig. 1 - Huffman Tree.



Symbol	Code word	Code word length
s <sub>1</sub>	0	1
s <sub>2</sub>	11110	5
s <sub>3</sub>	110	3
s <sub>4</sub>	10	2
s <sub>5</sub>	1110	4
s <sub>6</sub>	11111	5

Table 2 - Symbols, code words and code words lengths for the source X.