

X7.1 (minimum redundancy code) You are given a finite set of messages, and for each message, the probability of its occurrence.

- (a) Write a program to find a binary code for each message. It must be possible to unambiguously decode any sequence of 0s and 1s into a sequence of messages, and the average code length (according to message frequency) must be minimum.
- (b) Write the program to produce the decoder for the codes produced in part (a).

no solution given here, but see [this](#). The algorithm is due to David A. Huffman.