

# Huffman Encoding Tutorial Exercise 1

## Exercise

Consider a source with alphabet  $A$ , consisting of the symbols  $\{a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p\}$  with probabilities  $\{0.1054, 0.0219, 0.0379, 0.0265, 0.0791, 0.0416, 0.0742, 0.0443, 0.0715, 0.0710, 0.0644, 0.0827, 0.621, 0.0449, 0.1023, 0.0702\}$  respectively. Apply Huffman encoding in order to produce the codebook and estimate the average and minimum bit rate per vector sample for this source.