

Exercise 3, Page 1086.

For the 4x4 image shown below, design a Huffman coding scheme. Show all steps of your design. Compute the entropy of the image and average bit rates using direct binary coding and Huffman coding.

$$\begin{bmatrix} 1 & 0 & 2 & 2 \\ 0 & 2 & 1 & 1 \\ 3 & 3 & 2 & 2 \\ 2 & 2 & 2 & 2 \end{bmatrix}$$