Question

a) Construct cooccurence matrices (second-order joint probabilities) for the image below. Take the directions 0, $\pi/4$, $\pi/2$, $3\pi/4$ and the distance $|d|=1$ into account:

0	0	1	1
0	0	1	1
0	2	2	2
2	2	3	3

Question

b) Describe an application area for cooccurence matrices

Question

c) Describe the characteristics of the cooccurence matrices, given an image with high spatial frequencies in the horizontal direction and low frequencies in the vertical direction

Question

d) Define a cooccurence matrix feature capable of discriminating low-frequency images from high-frequencies images

Question

e) Describe a Fourier-based feature for the same task as in d)