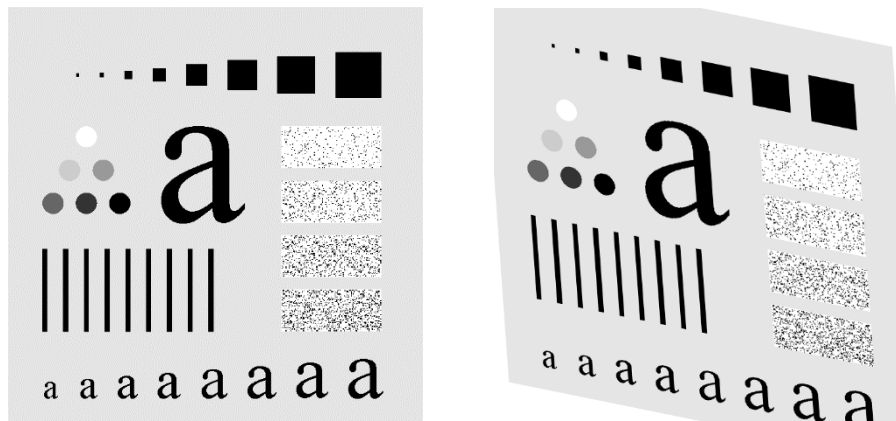
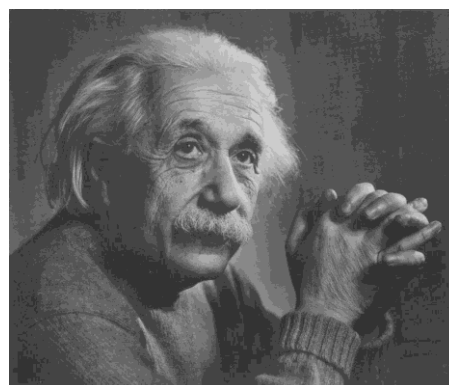


Practise session 2: Digital Image Fundamentals

1. The following two images are given, the images are of the same object. For the processing of the images one should perform registration between the two images. Use the approach presented in the lectures for registration. Implement the approach with Matlab. See function *fitgeotrans*. (1)



2. Low-resolution images can be interpolated to a higher resolution. The low-resolution image is given below. Apply nearest neighbor interpolation and bi-linear interpolation to enhance the resolution of the image. Are there any differences between the interpolated images? Use Matlab in your solution. Use the image below, left (clock). See function *imtransform*. (1)



3. Compute the n th, $n=0,1,2,3,4$ moments for the image above, right (Einstein). Then modify the contrast for the image. How did the moments change? How would it be possible to change various moments and what is the connection between the change of the moment and the change in the image? (1)