(2 points)
(a) Explain briefly why the use of *Discrete Cosine Transform* (DCT) in digital image compression usually results in less *blocking artifact* than the use of *Discrete Fourier Transform* (DFT).

(4 points)
(b) A 512×512 size digital image with 8 bits per pixel needs to be compressed by a factor of 4. Describe briefly the computational steps involved in compressing and decompressing the image using a *transform compression method* such as the DCT. No need to write equations such as for the DCT. Mention any trade-offs involved.

(4 points)
(c) Mention the relative advantages and disadvantages of the following transform compression methods for digital images: Karhunen-Louve (K-L) transform, DFT, DCT, and Hadamard transform.