1. Generate a RIS of size 400 from an Exponential distribution with the mean of 2.3. Then, convert this sample into the corresponding estimate of the sampled PDF, using an optimal (by your judgement) value of h, knowing (only) that the support of the sampled distribution is $[0, \infty)$.

2. Consider the (additive) group

$$5^4 \oplus 5^3 \oplus 5^2 \oplus 7^3 \oplus 7^3 \oplus 7^2$$

where $\mathbf{p^k}$ is the usual cyclic group of integers under addition mod p^k. Find the order of $(425, 85, 17, 252, 253, 36)$ within this group. What is the highest order of an element of this group? How many such elements (of the highest order) are there? How many elements are there of the order of 1225? What set of conditions must such elements (of the latter set) meet?