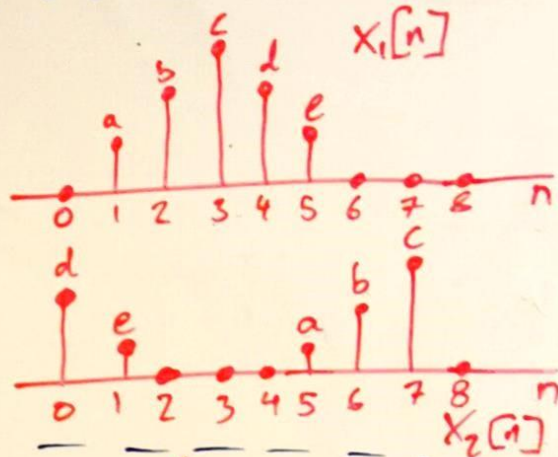


Lecture 9

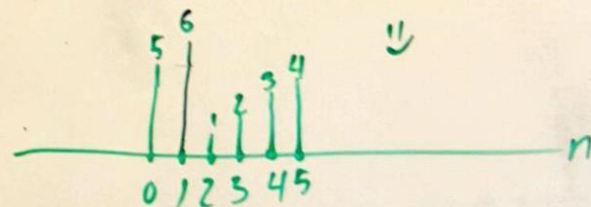
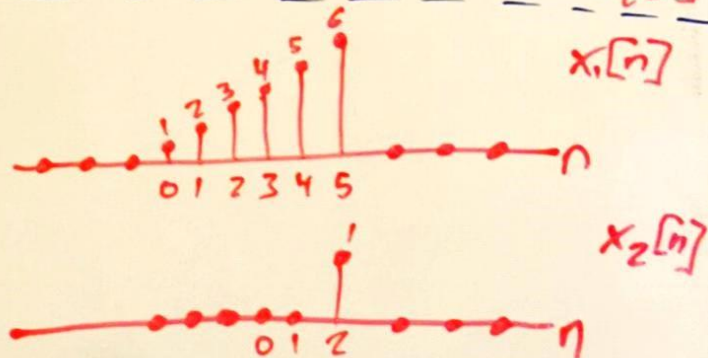
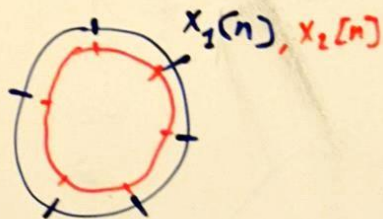
10) Determine the relationship between $X_1[k]$ and $X_2[k]$

$$\begin{aligned} X_2[k] &= X_1[k] \cdot e^{-j \frac{2\pi k n_0}{N}} \\ &= X_1[k] \cdot e^{-j \frac{2\pi k 4}{8}} \\ &= X_1[k] \cdot e^{-j \pi k} = X_1[k] \cdot (-1)^k \end{aligned}$$



11)

Two finite-length sequences $x_1[n]$ and $x_2[n]$. Sketch their six-point circular convolution.



when convoluting with an impulse you phase shift ω