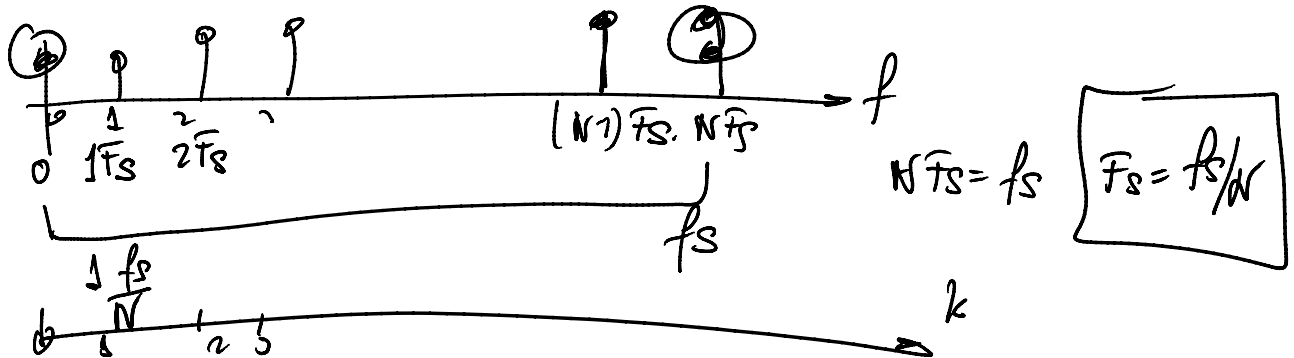
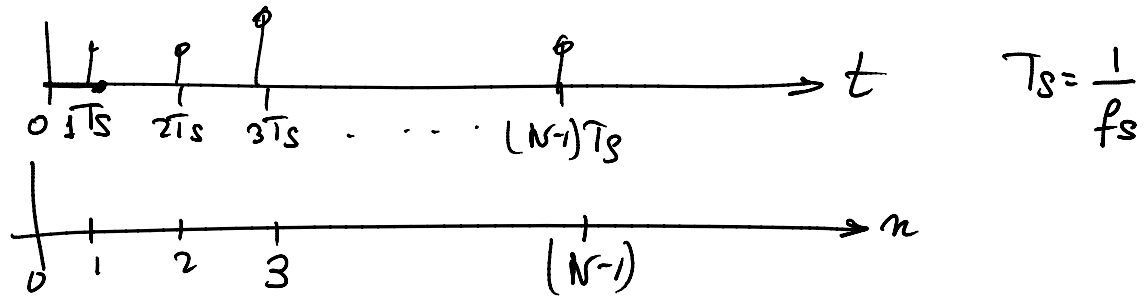


Time axis relation to n axis:



$N = 10^3$

$f_s = 1\text{kHz}$. How separated are the freq samples.

$F_s = f_s / N = 10^3 / 10^3$

Example -

$f_c = 60\text{Hz}$. \longrightarrow ~~$f_s = 120\text{Hz}$~~ \rightsquigarrow 350Hz .

$N = 100$

$x = \sin\left(2\pi f_c \left[\frac{0:N-1}{f_s}\right]\right)$

$k=6$ we have the spike.

