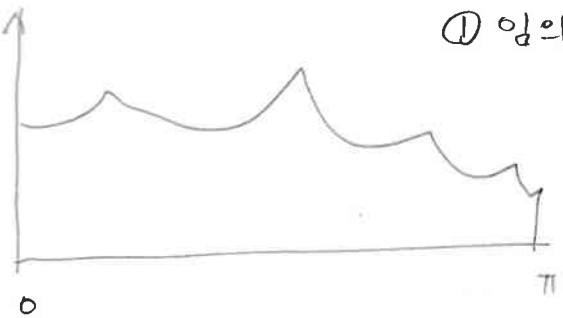
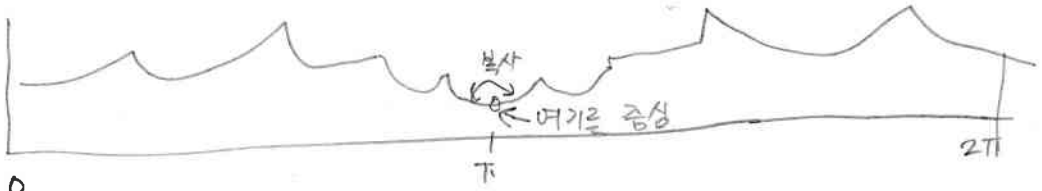
$H(w)\big|_{w=0\sim\pi}$

① 임의의 frequency response를 할당한다



$k=1$ $\qquad k=\frac{NFFT}{2}+1$

② Real(H(w)) → symmetric하게 생성한다



$k=1$ $\qquad k=\frac{NFFT}{2}+1$ $\qquad k=NFFT$

③ $Imag(H(w)) = 0,\ k=1 \ldots NFFT$

$H(w) = R(w) + j\,I(w)$

④ time domain signal 구한다

$h[n] = IFFT(H(w))$ → symmetric, real only signal

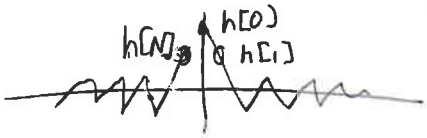
h[0]는 대칭 없음

$h[1] = h[N]$

$h[2] = h[N-1]$

⑤ linear phase로 변환

뒷 절반을 (-) 값으로 → $\overset{m}{\text{symmetric}}$



⑥ h[0]를 중심으로 M/2 만큼씩 (M은 짝수)

⑦ hamming windowing