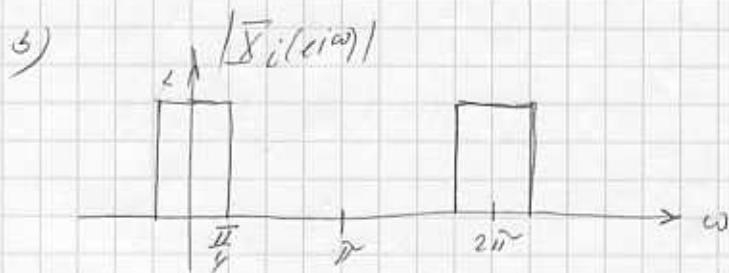
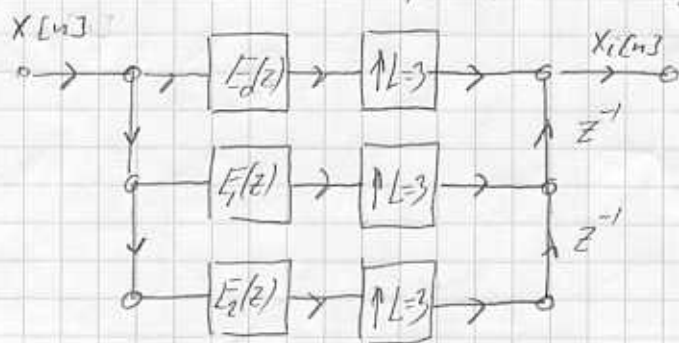


a) $\omega_c = \frac{\pi}{L} = \frac{\pi}{3}$



d)

$$\begin{aligned}
 H_i(z) &= h[0] + h[1]z^{-1} + h[2]z^{-2} + h[3]z^{-3} + h[4]z^{-4} + h[5]z^{-5} \\
 &= (h[0] + h[3]z^{-3}) + (h[1] + h[4]z^{-3})z^{-1} + (h[2] + h[5]z^{-3})z^{-2} \\
 &= E_0(z^3) + E_1(z^3)z^{-1} + E_2(z^3)z^{-2}
 \end{aligned}$$



fx. $E_0(z^3) = h[0] + h[3]z^{-3}$

$E_0(z) = h[0] + h[3]z^{-1}$

e) Der er L gange så lang tid til de 6 multiplikationer pr sampling.