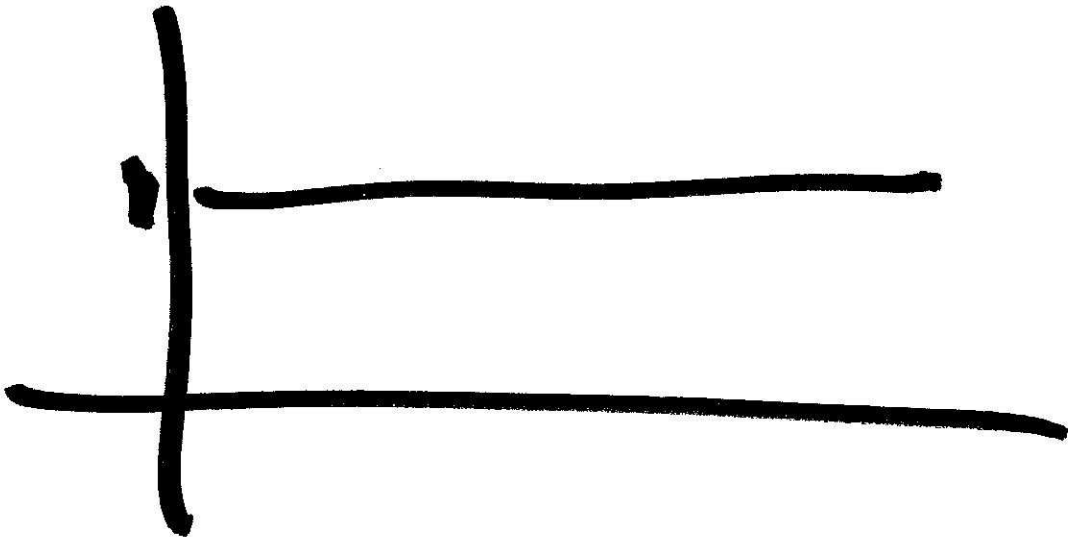
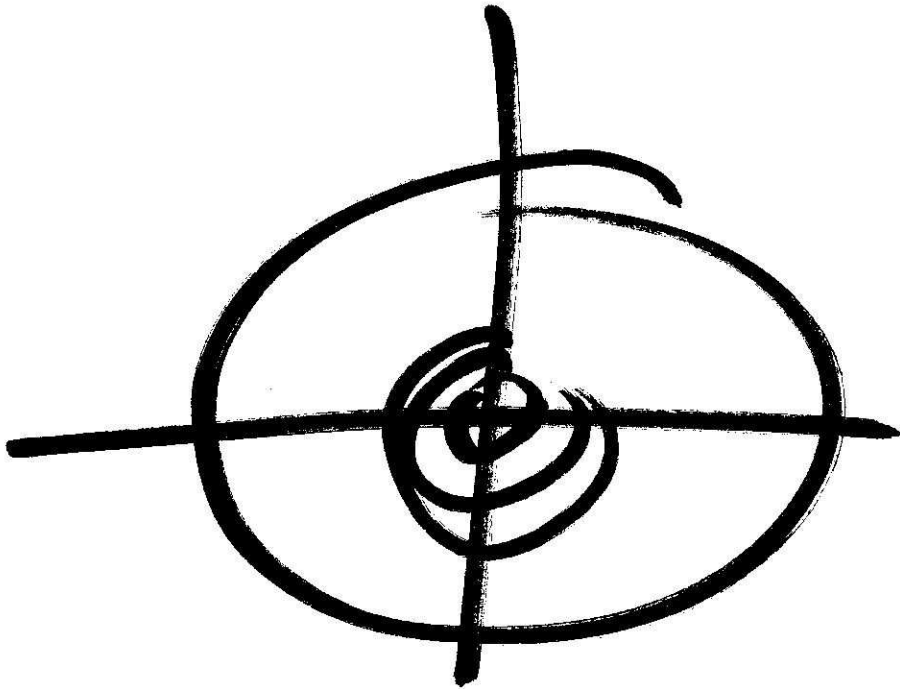


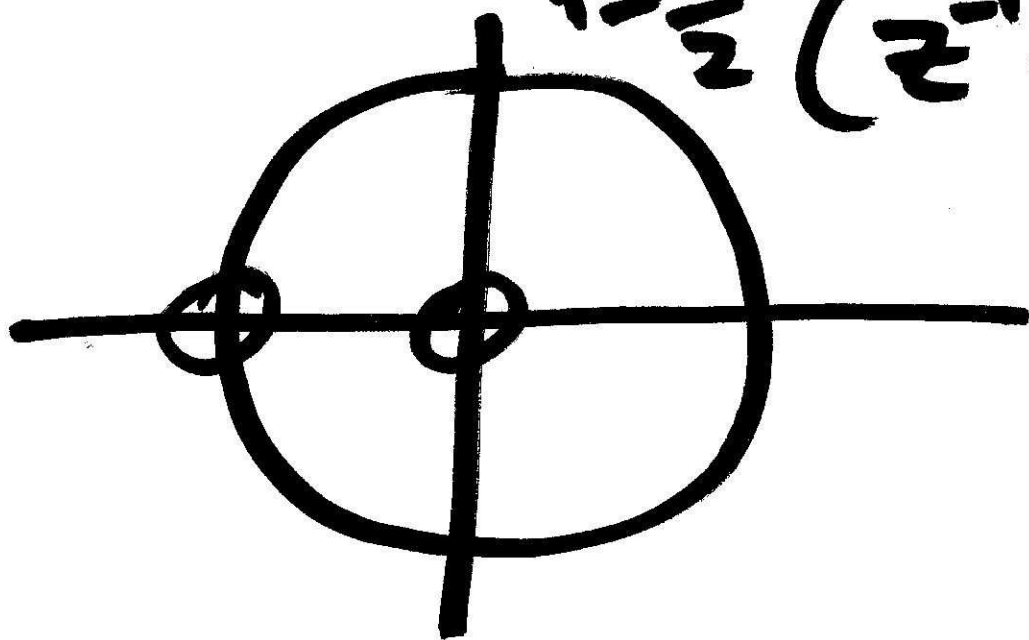
$$H(z) = z^{-M}$$

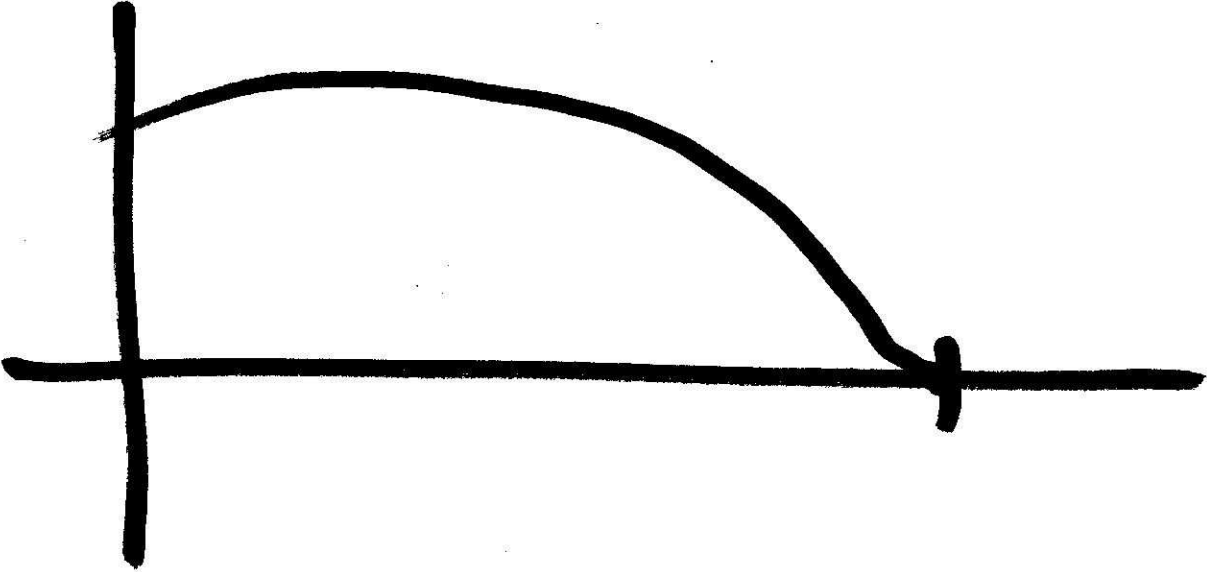
M zeros at $z=0$



$$y[n] = f \times [n - (M+1)] \\ + (1-f) \times [n - M]$$

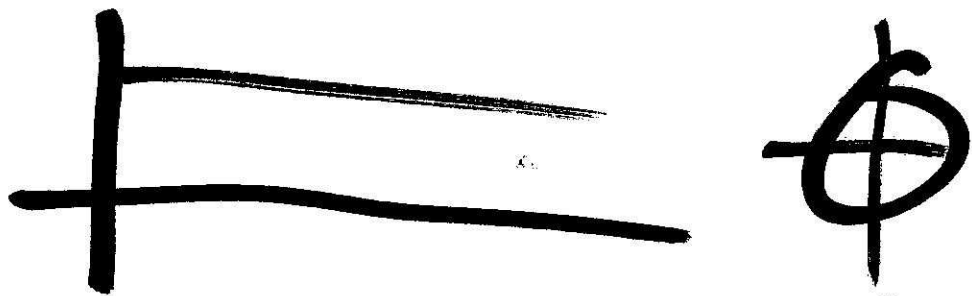
$$H(z) = f z^{-(M+1)} \\ + (1-f) z^{-M} \\ = z^{-M} (f z^{-1} + (1-f)) \\ f = \frac{1}{2} (z^{-1} + 1)$$



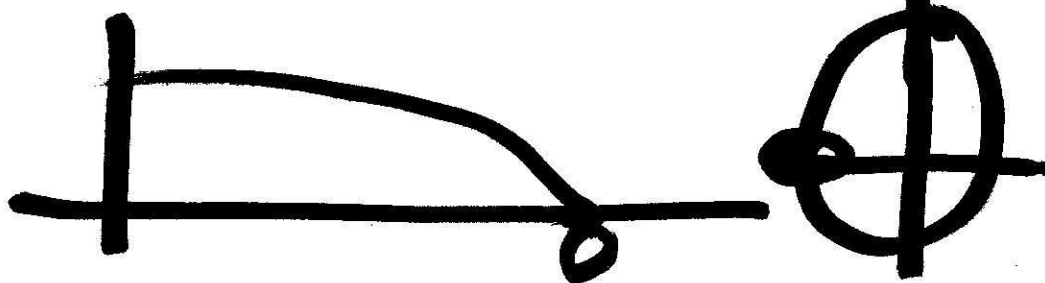


$$H(z) = 1 + g z^{-M}$$

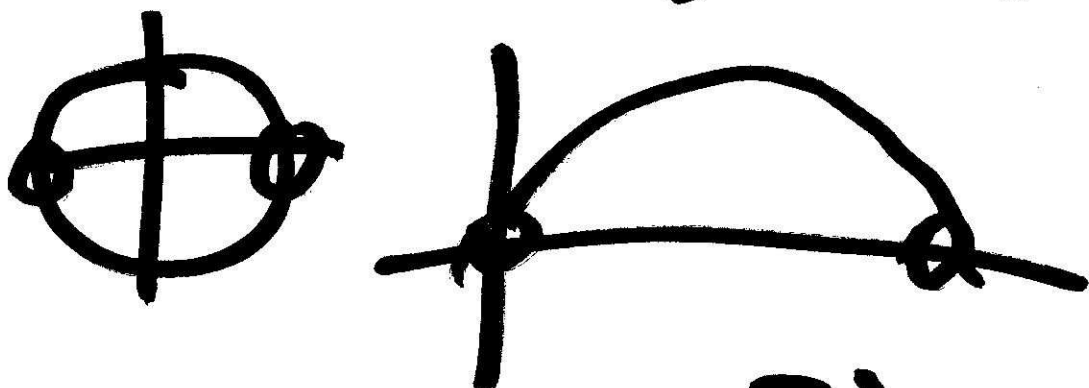
$$M=0$$



$$M=1$$

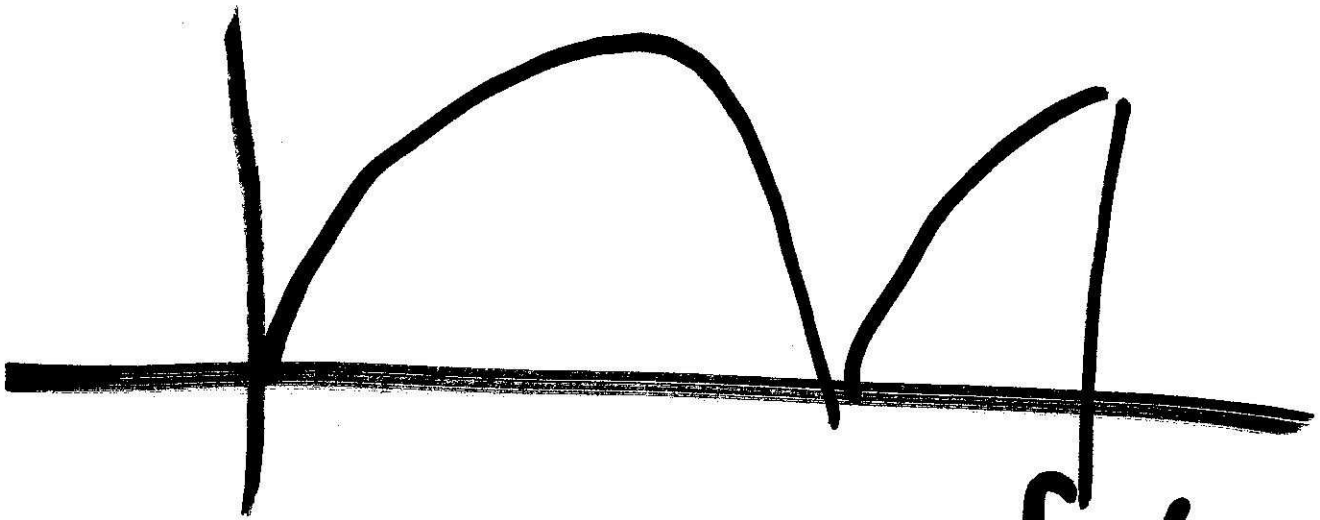
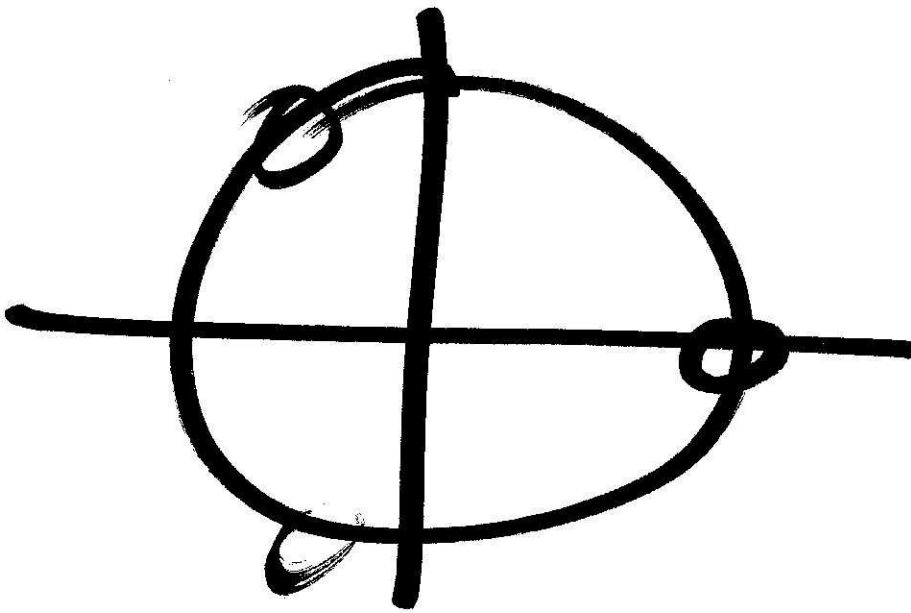


$$M=2$$



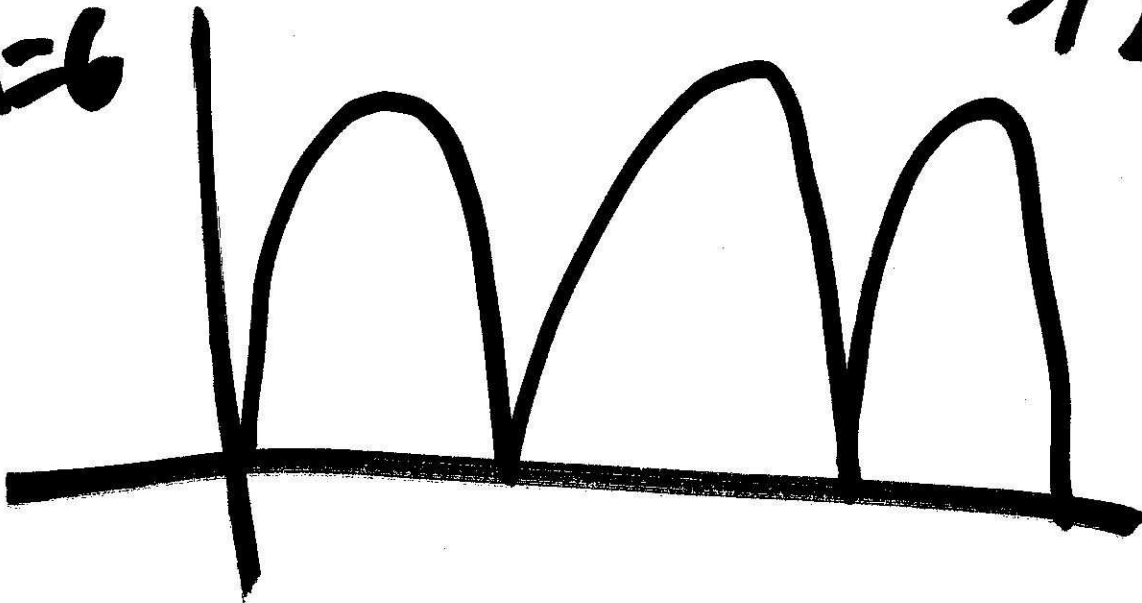
$$H(e^{j\omega}) = 1 + e^{-2j\omega}$$

$$M=3 \quad \omega = 0, \frac{2\pi}{3}, 2\frac{2\pi}{3}$$

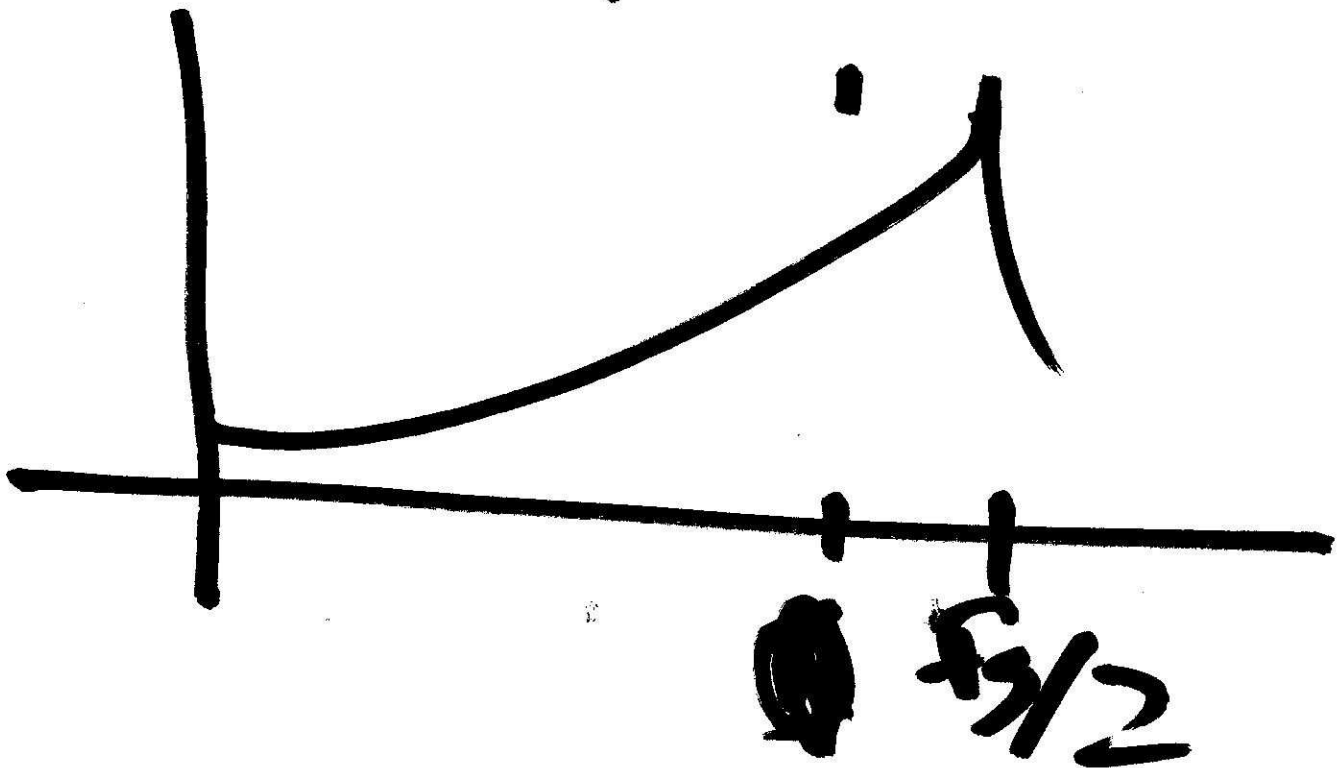
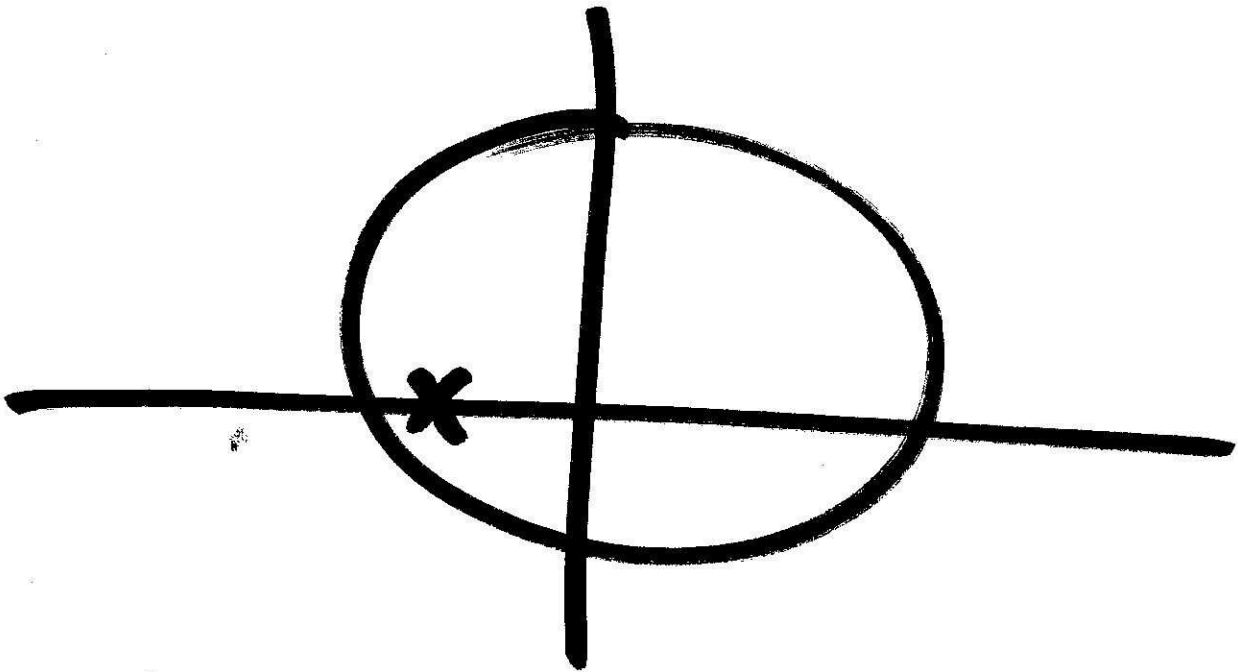


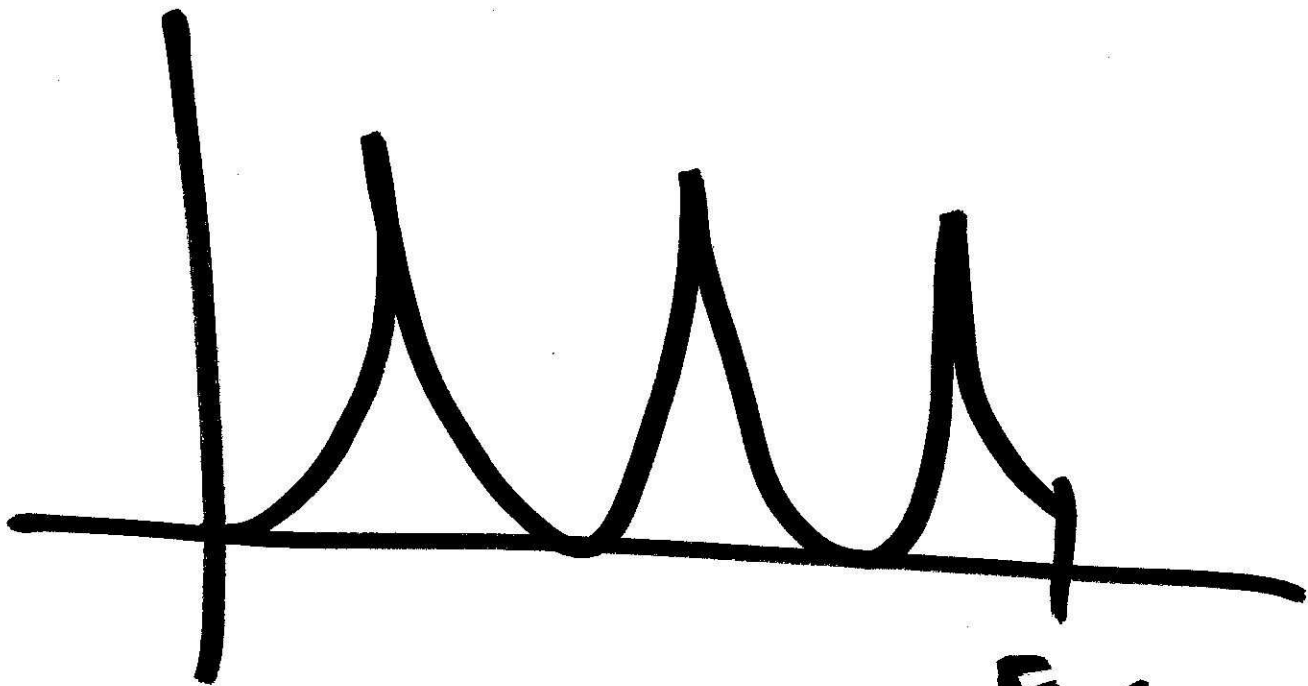
$\frac{3}{2}$

$n=6$



$$H(z) = \frac{1}{1 + \frac{1}{3}z^{-1}} \quad g=0.9$$





$F_{s/2}$