信號與系統Matlab hw4

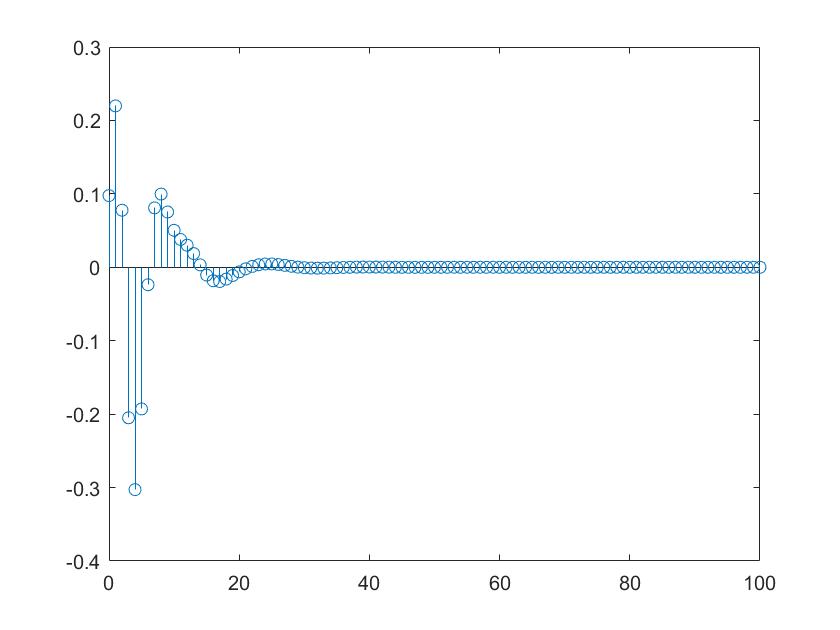
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(a)

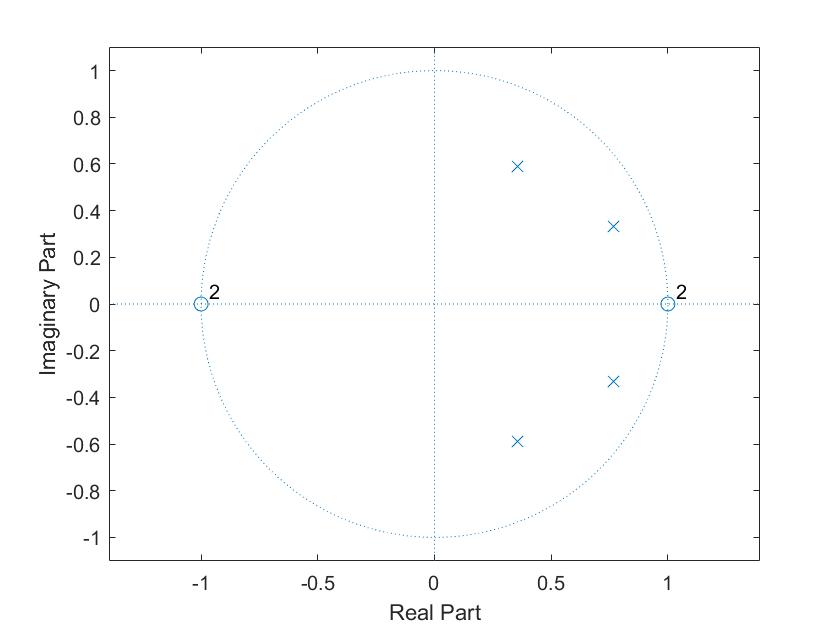
∵h[n] is causal,

ROC:

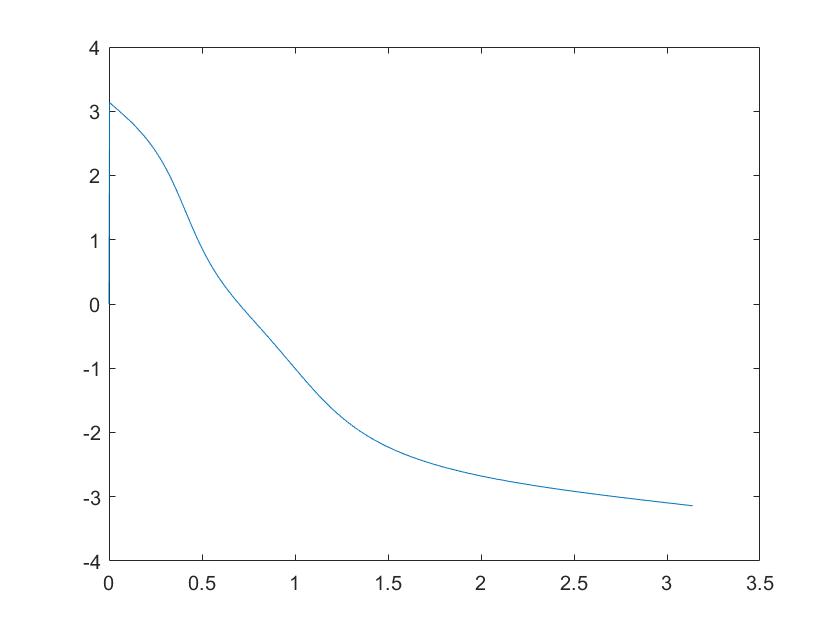
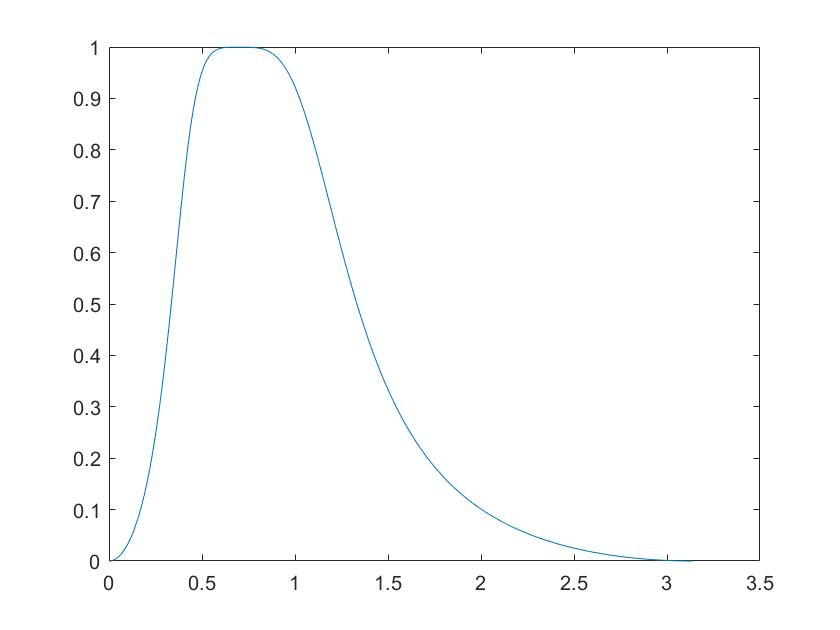
h[n] v.s n



(b) pole-zero plot of H(Z)

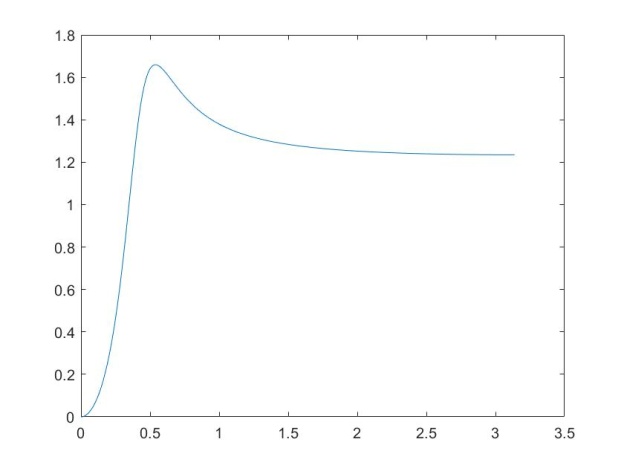
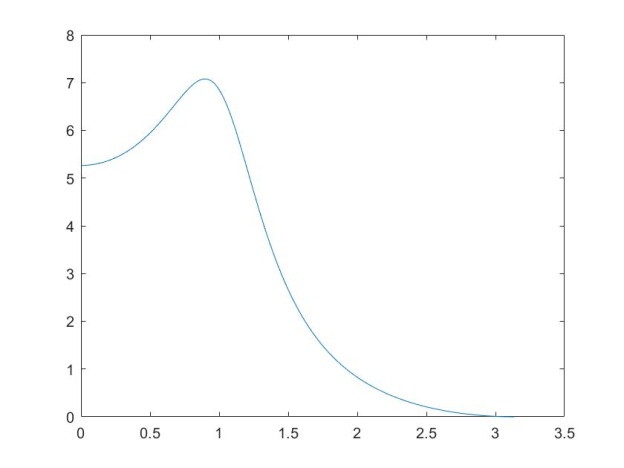


(c) |H(ejw)| v.s w ∠H(ejw) v.s w

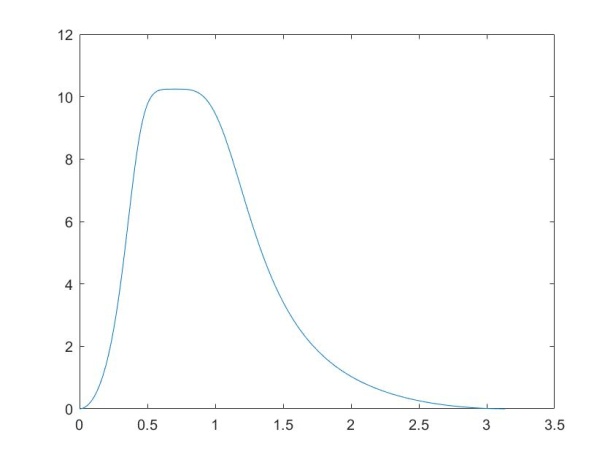


(d)

By matlab function zp2sos, we can obtain and .

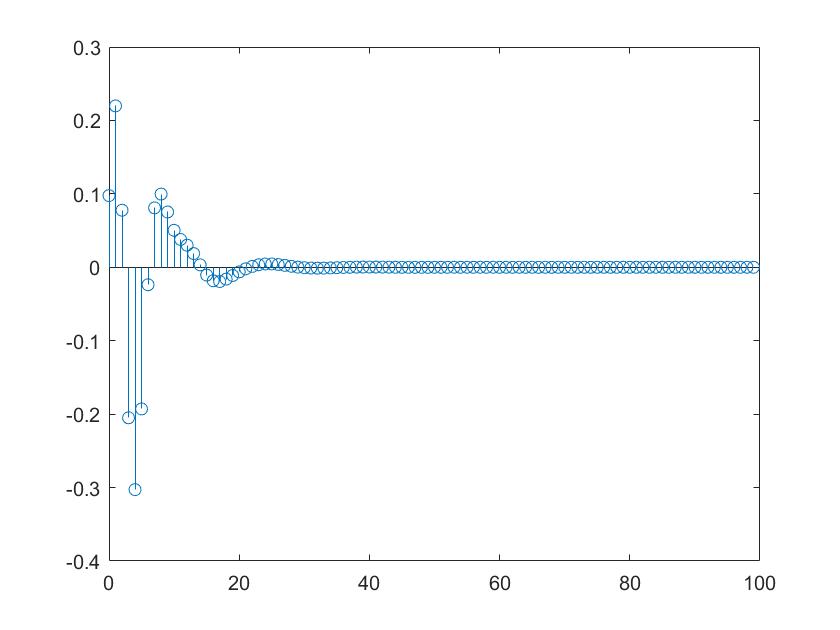
(e) |H1(ejw)| v.s w |H2(ejw)| v.s w

|H1(ejw)| |H2(ejw)| v.s w



Almost same as figure in (c) only the magnitude is multiplied by .

(f) y[n] v.s. n where y[n] is the impulse response



Exactly the same as the figure in (a).