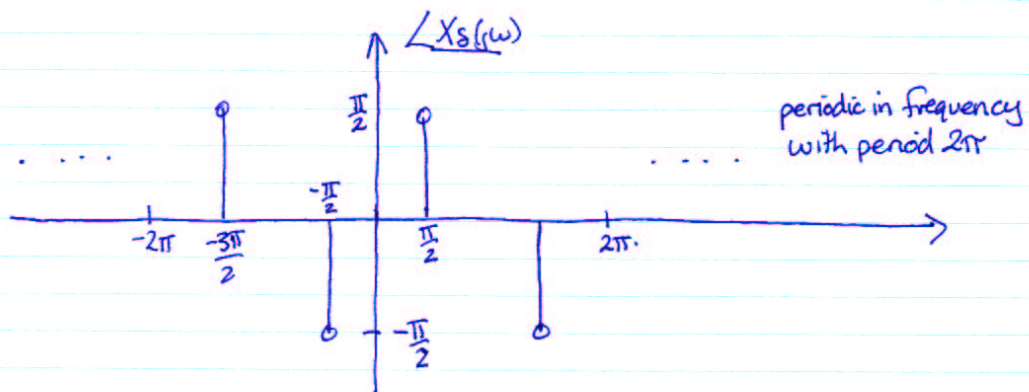
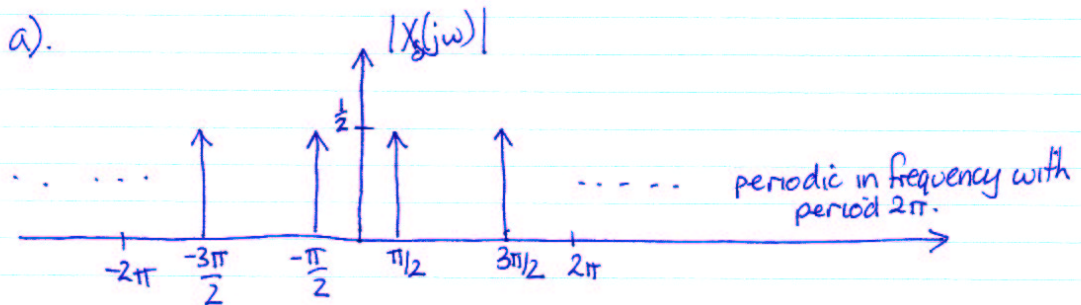


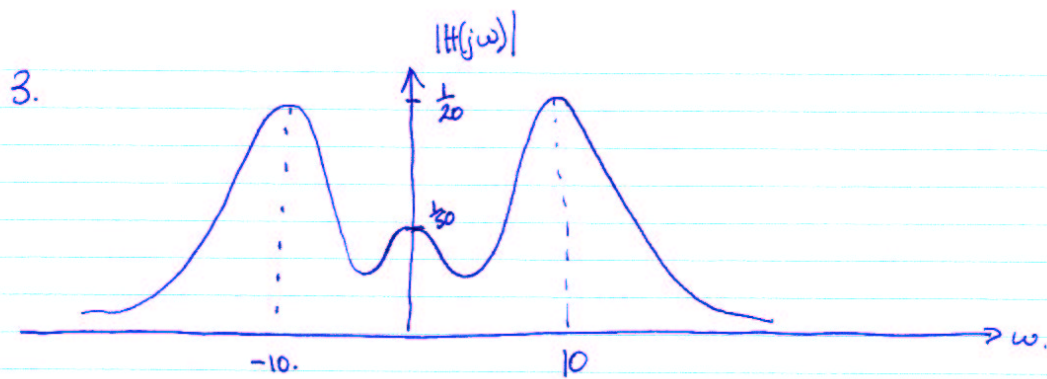
## SOLUTIONS TO SECOND MIDTERM.

1. 
$$y(t) = \frac{12 \sin(6\pi(t-3))}{\pi(t-3)} + 8 \sin(4\pi t - \pi/3)$$

2. a.



b)  $T_s = 2/3$ .



4. a) 
$$h[n] = \frac{3}{4} \left(\frac{1}{4}\right)^{n-1} u[n-1]$$

b) Yes, the system is causal

c) Yes, the system is stable.