Questions

1. Sketch a random sample Tx sequence $s(t)$

2. Let Rx signal be

$$y(t)=\sum a_i s(t-\partial_i)+ n(t)$$

Sketch $y(t)=\sum a_i s(t-\partial_i)$

If there is only path $a_1=1, a_2=0; \partial_1=0, \partial_2=T/2$,

If there are two paths $a_1=1, a_2=0.5; \partial_1=0, \partial_2=T/2$

3. How can we detect the Tx data bits +1 or -1 given $y(t)=\sum a_i s(t-\partial_i)+n(t)$

4. What is equalization?

5. If $a_1=1, a_2=0.5; \partial_1=0, \partial_2=T/2$ design a equalization filter

6. If $a_1=0.5, a_2=1; \partial_1=0, \partial_2=T/2$, design a equalization filter