ECS 332: Exercise Solution

Instructions

1. Separate into groups of no more than three persons.
2. The group cannot be the same as your former group.
3. Only one submission is needed for each group.
4. ***Write down all the steps*** that you have done to obtain your answers. You may not get full credit even when your answer is correct without showing how you get your answer.
5. **Do not panic.**

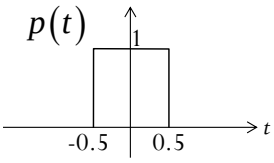
Name	ID
Prapun	555

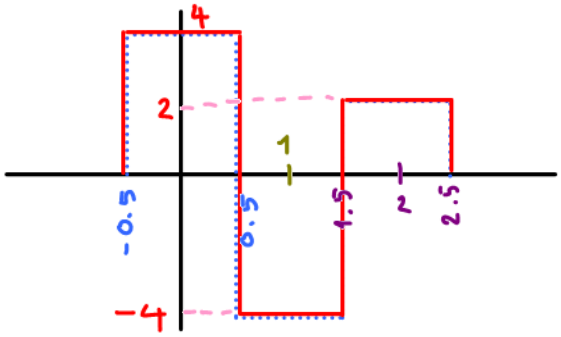
Recall that the PAM signal is constructed from the discrete-time message $m[n]$ via

$$x_{PAM}(t) = \sum_{n=-\infty}^{\infty} m[n]p(t - nT_s).$$

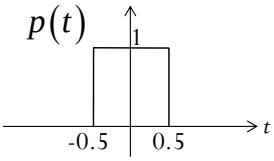
Suppose we want to transmit a sequence of only three numbers 4, -4, and 2 using PAM. These numbers are denoted by $m[0]$, $m[1]$, and $m[2]$, respectively. Assume $m[n] = 0$ for other values of n.

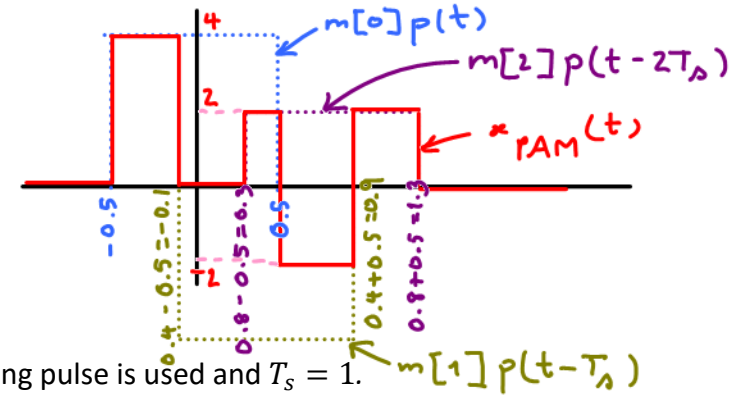
(a) Plot $x_{PAM}(t)$ when the following pulse is used and $T_s = 1$.





(b) Plot $x_{PAM}(t)$ when the following pulse is used and $T_s = 0.4$.





(c) Plot $x_{PAM}(t)$ when the following pulse is used and $T_s = 1$.