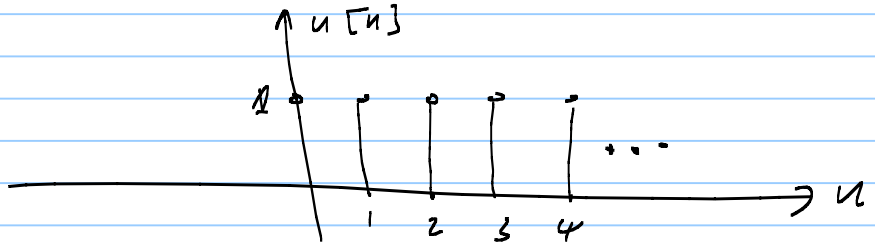
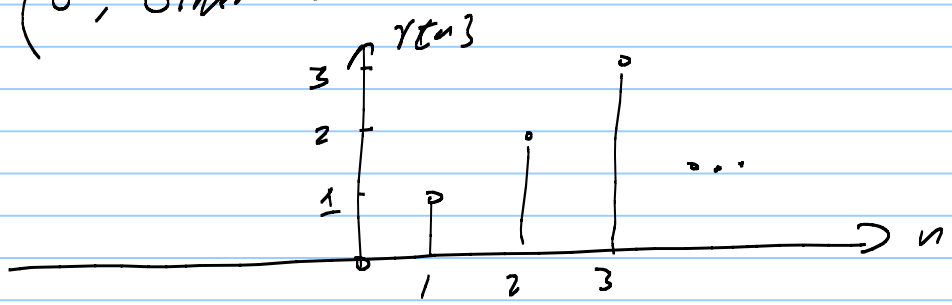
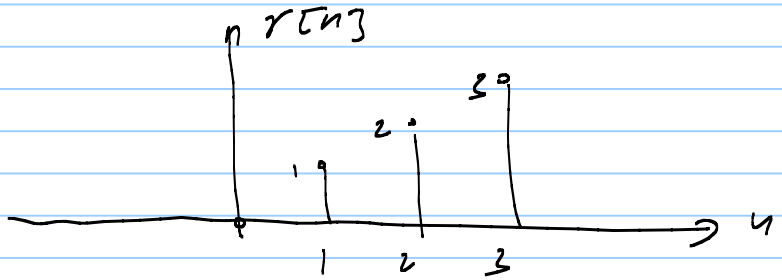
Note Title EE 362 Lecture Notes 3 Spring 2019 1/29/2019

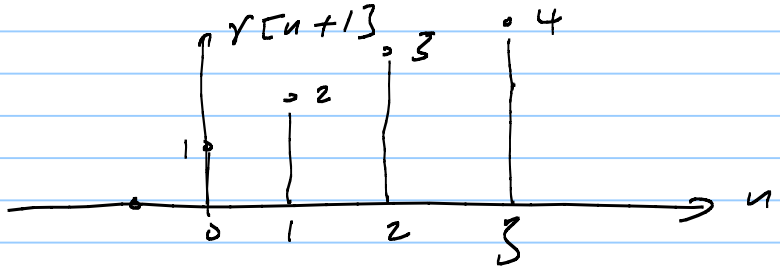
(1) $u[n] = \begin{cases} 1, & n = 0, 1, 2, \dots \\ 0, & \text{otherwise} \end{cases}$




(2) $r[n] = \begin{cases} n, & n = 0, 1, 2, \dots \\ 0, & \text{otherwise} \end{cases}$

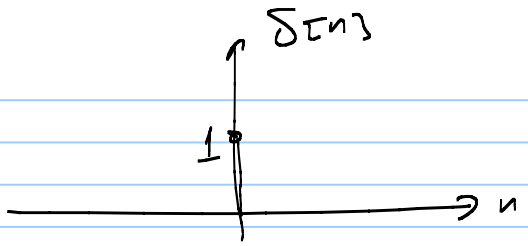


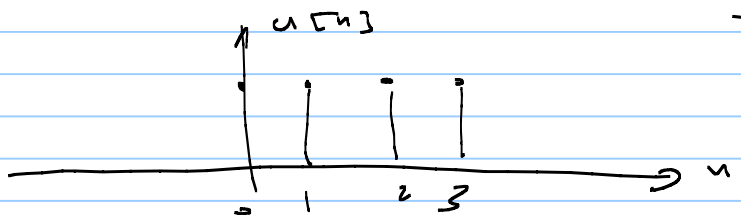



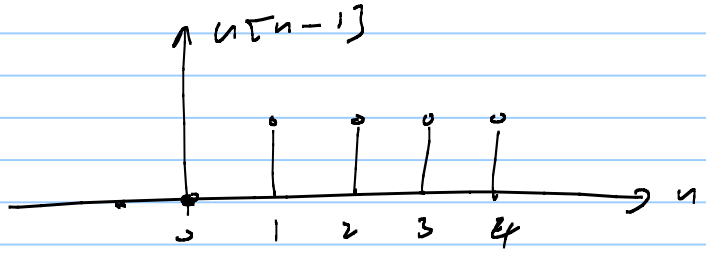




$u[n] = r[n+1] - r[n]$

(3) $\delta[n] = \begin{cases} 1, & n = 0 \\ 0, & \text{otherwise} \end{cases}$

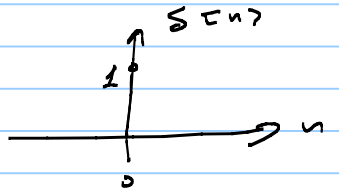


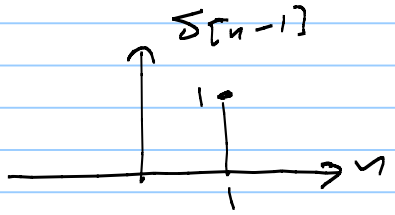



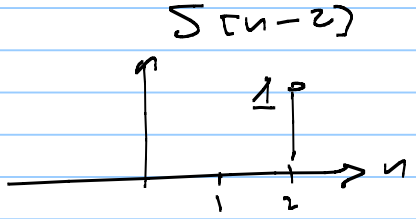




$\delta[n] = u[n] - u[n-1]$

---



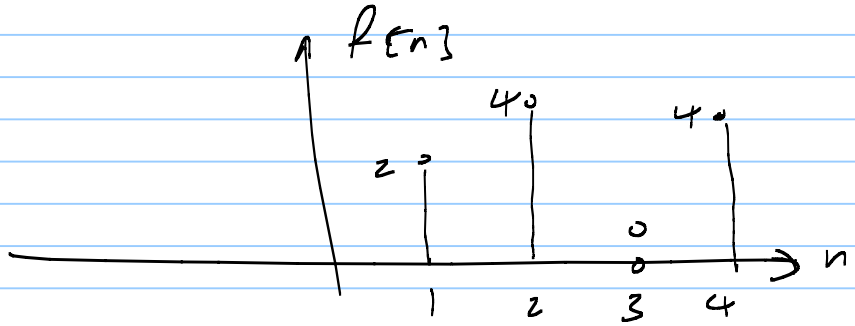




$u[n] = \delta[n] + \delta[n-1] + \delta[n-2] + \cdots$

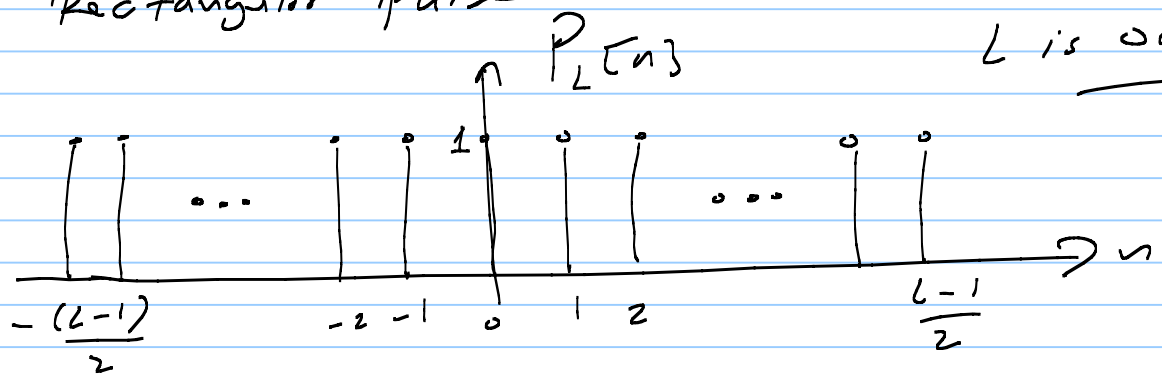
$= \sum_{i=0}^{\infty} \delta[n-i]$

---




$f[n] = 2\delta[n-1] + 4\delta[n-2] + 4\delta[n-4]$

④ Rectangular Pulse




L is odd number

---

$y(t) = 2x(t) + 2$

$x_1(t) \rightarrow y_1(t) = 2x_1(t) + 2$

$x_2(t) \rightarrow y_2(t) = 2x_2(t) + 2$

$x_1(t) + x_2(t) \rightarrow y_3(t) = 2(x_1(t) + x_2(t)) + 2$

$y_1(t) + y_2(t) \stackrel{?}{=} y_3(t)$

non-linear