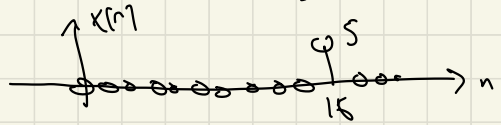


0024 Sip 27

$$y[n] = 18x[n-2] + 8x[n-13] + 10x[n-19]$$

$$x[n] = 5\delta[n-16]$$



What is $y[n]$?

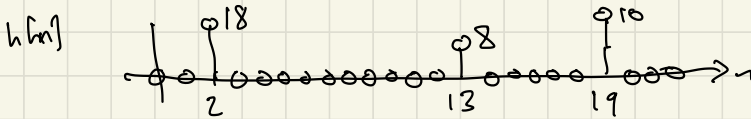
Answer: $y[n] = h[n] * x[n]$

$$= \sum_m h[m] x[n-m] = \sum_m x[m] h[n-m]$$

Impulse Response:

$$x[n] = \delta[n] \longrightarrow y = h[n]$$

$$y[n] = 18\delta[n-2] + 8\delta[n-13] + 10\delta[n-19] = h[n]$$



$$y[n] = \sum_{m=-\infty}^{\infty} x[m] h[n-m] = x[16] h[n-16]$$