PROBLEM:

Let x[n] = u[n] - u[n-7] and $h[n] = \begin{cases} (\frac{1}{2})^n & 0 \le n \le 3\\ 0 & \text{otherwise.} \end{cases}$ (a) Plot x[n].

$$-10$$
 Plot $h[n]$.

-5

-5

Label the amplitudes for each sample.

-10

-10

$$e x[n] = \delta[n] + \delta[n-1] +$$

(b) If we now assume
$$x[n] = \delta[n] + \delta[n-1] + \delta[n-2]$$
 and $y[n] = x[n] * h[n]$, where $h[n]$ is as defined above, plot $y[n]$ on the axis below.

0

0

0

5

5

5

n

n

10

10

10