PROBLEM:

A linear time-invariant system is described by the difference equation

$$y[n] = \sum_{k=0}^{5} x[n-k]$$

The input to this system is

$$x[n] = \begin{cases} 0 & n < 0 \\ 3 & 0 \leq n \leq 4 \\ -1 & 5 \leq n \end{cases}$$

Compute $y[n]$, over the range $0 \leq n \leq 8$. Make a plot of $y[n]$ vs. n.