

## PROBLEM:

An FIR filter is described by the difference equation:

$$y[n] = 3x[n - 1] - 2x[n - 3]$$

- (a) Find its impulse response  $h[n]$  and plot versus  $n$ .
- (b) Find the output when the input signal is  $x[n] = \begin{cases} 1 & n = 0, 2, 4 \\ 0 & \text{elsewhere} \end{cases}$