Exercise 2

Representing Signals (Again)

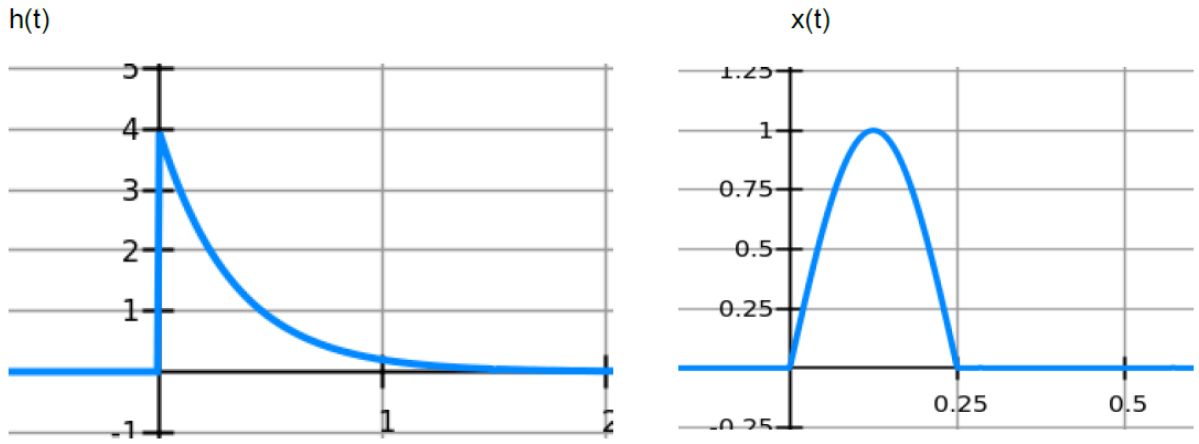
Part 1:

Consider two input signals:

$$h(t) = \begin{cases} 4 * \exp(-2t) & 0 < t < 2 \\ 0 & -1 < t < 0 \end{cases}$$

$$x(t) = \begin{cases} \sin(2 * pi * f * t) & 0 < t < 0.25 \\ 0 & -1 < t < 0; 0.25 < t < 2 \end{cases}$$

as shown in the figure below where f = 2Hz.



Write a Matlab function to generate the signals x(t), h(t) and y(t) = x(t) .* h(t).

Part 2:

Write a Matlab test bench script to plot the signals: x(t), h(t), and y(t).