PROBLEM:

Suppose that a LTI system has system function equal to

$$H(z) = 1 - 3z^{-2} - 7z^{-3} + 4z^{-5}$$

(a) Determine the difference equation that relates the output $y[n]$ of the system to the input $x[n]$.

(b) Determine and plot the output sequence $y[n]$ when the input is $x[n] = \delta[n]$.