Assignment - 2

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Abstract—**This document contains the solution to Exercise 3.10 (e) of Oppenheimer.**

Problem 1. For each of the below, comment if the system is causal:

$$1. h[n] = (-1/2)^n u[n] \tag{1}$$

$$2. h[n] = (-1/2)^n u[n-1] \tag{2}$$

$$3. h[n] = (-1/2)^{|n|} \tag{3}$$

$$4. h[n] = u[n+2] - u[n-2] \tag{4}$$

$$5. h[n] = (1/3)^n u[n] + 3^n u[-n-1] \tag{5}$$

Solution:
For causal system h[n] = 0, for n<0 herefore, (1) and (2) are causal whereas (3),(4) and (5) are not.