

IN-CLASS # 1

GROUP #

GROUP MEMBERS:

A CT LTI SYSTEM HAS THE IMPULSE RESPONSE
$$h(t) = u(t-2) - u(t-6)$$

DETERMINE THE OUTPUT OF THIS SYSTEM WHEN
THE INPUT IS e^{-3t} FOR ALL t .

N-CLASS #2

GROUP #

GROUP MEMBERS:

CONSIDER 3 CT LTI SYSTEMS S_1 , S_2 , AND S_3 WHOSE RESPONSES TO A COMPLEX EXPONENTIAL INPUT e^{jst} ARE SPECIFIED AS

$$S_1: e^{jst} \rightarrow t e^{jst}$$

$$S_2: e^{jst} \rightarrow e^{js(t-1)}$$

$$S_3: e^{jst} \rightarrow \cos(st)$$

FOR EACH SYSTEM DETERMINE WHETHER THE GIVEN INFORMATION IS SUFFICIENT TO CONCLUDE THAT THE SYSTEM IS DEFINITELY NOT LTI.