

## **Assignment 1**

Generate plots of following 3 signals:

1. Sinusoidal signal (choose value of frequency appropriately)
2. Unit pulse function (starting at 0 and ending at 2)
3. Exponential function

Using the unit pulse signal generated above, comment on the linearity and the time-invariance of the following systems

$$y(t) = \exp(-x(t))$$

$$y(t) = x(2t)$$

$$y(t) = x(t-1) + x(-t-1)$$