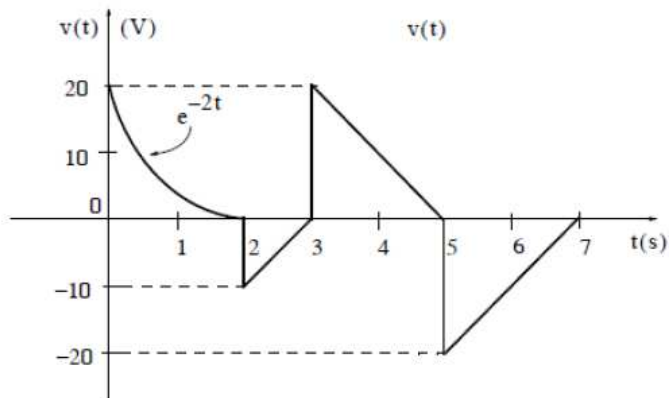


Consider the signal $v(t)$ given below.



Write a MATLAB script to do the following

- Display $v(t)$ and $v(2t-1)$ in window 1 by using **subplot**.
- Display both the even component and odd component of $v(t)$ in window 2 by using **subplot**.
- Verify if the system $y(t) = \sin(x(t))$ is time-invariant by displaying $x_1(t) = v(t)$, $y_1(t)$, $x_2(t) = v(t-2)$, and $y_2(t)$ in window 3.
- Verify if the system $y(t) = t \sin(x(t))$ is time-invariant by displaying $x_1(t) = v(t)$, $y_1(t)$, $x_2(t) = v(t-2)$, and $y_2(t)$ in window 4.