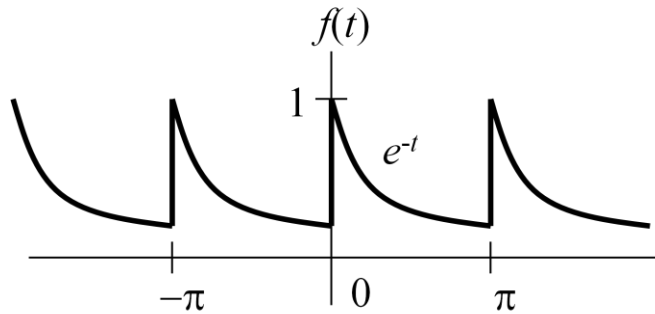


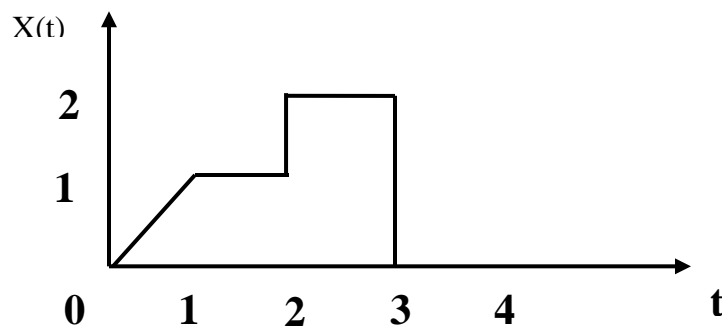


- Answer all the following questions
- Illustrate your answers with sketches when necessary

1. Decompose $f(t)$ using Fourier series (find and draw magnitude as well as phase)



2. Assume one period only from the above signal multiplied by unit step function find and draw the magnitude and phase of the Fourier transform of this signal.
3. Prove the time shifting property of the Fourier transform of the signal described in problem (2) if it was delayed by 5.
4. Drive the Fourier transform of the waveform in the figure below:



GOOD LUCK

DR. MICHAEL NASIEF