

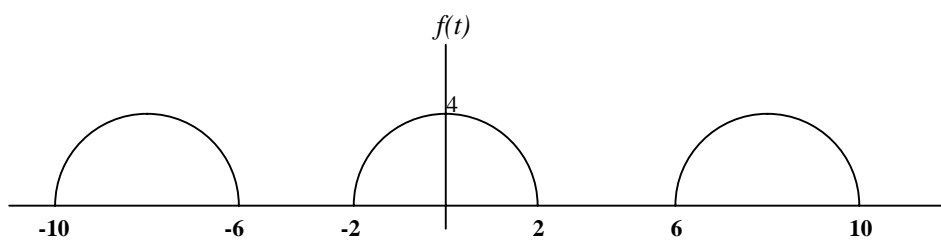
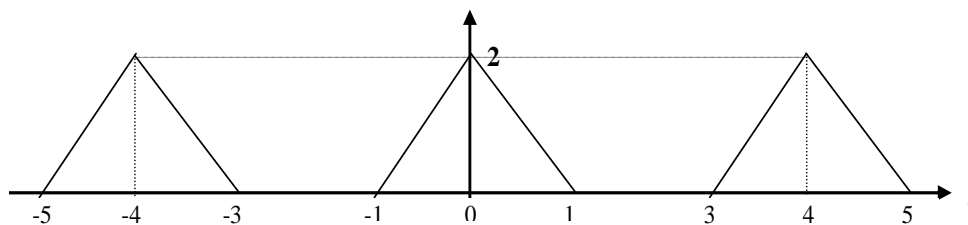
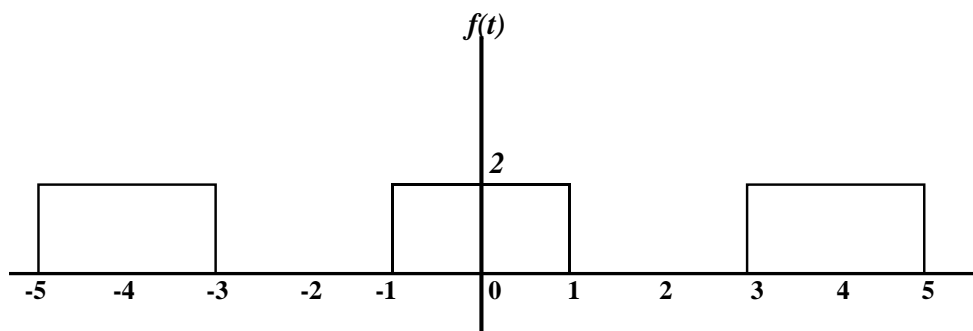


## Sheet (2)

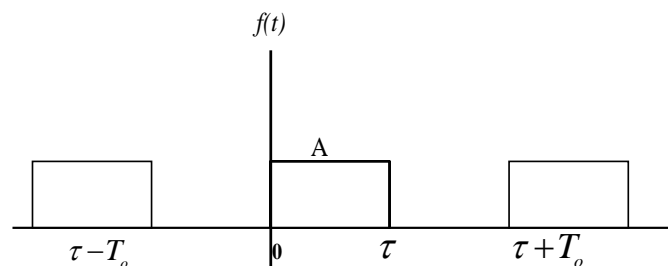
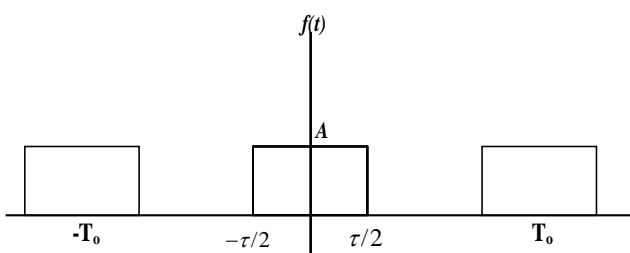
### Fourier Series - Complex Fourier Series

1- Find the spectral analysis of the shown periodic signals using:

- Fourier series coefficients
- Fourier series complex exponential coefficients

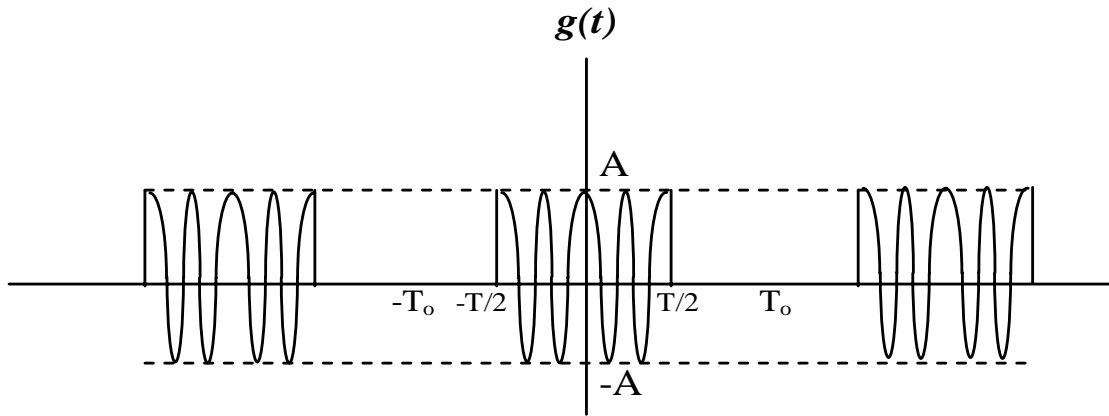


2- Compare between the complex fourier series coefficients of the following signals:



3- Find the spectral analysis of the shown RF signal

$$g(t) = \begin{cases} A \cos(2\pi ft) & -\frac{T}{2} \leq t \leq \frac{T}{2} \\ 0 & \text{elsewhere} \end{cases}$$



### Assignment

- Find the spectral analysis using the complex fourier series coefficients for the following:

