

EE351 Homework 9

1) Find the Fourier transform for each of the functions:

(a) $e^{-2t}u(t)$

(b) $e^{-2t}u(t-1)$

(c) $e^{-|t-2|}$

2) Determine the exponential Fourier series for the signal shown in Fig.1.

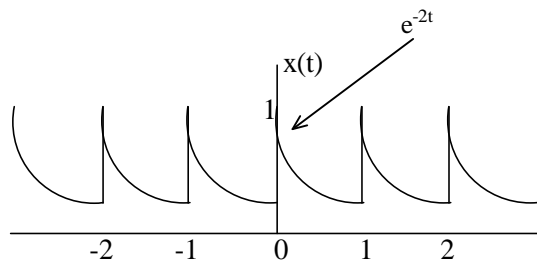


Fig. 1

3) For the circuit in Fig.2. Determine the frequency response $H(j\omega)$.

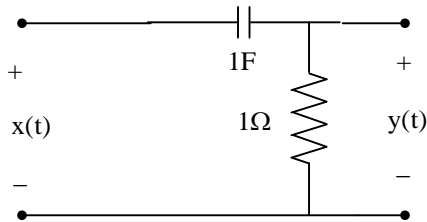


Fig. 2

- 4) For the circuit in Fig. 2 and the input voltage $x(t)$ in Fig. 1. Determine the output voltage $y(t)$.