Serial #

 ……

**-1 points for not writing your serial #**

**King Fahd University of Petroleum & Minerals**

Electrical Engineering Department

EE207: Signals & Systems (122)

**Quiz 4: Fourier Series**

**Dr. Ali Hussein Muqaibel**

Name: Key Ver.2

Find the exponential Fourier series for the signal shown in the figure



In this case $T\_{0}=π, ω\_{0}=\frac{2π}{T\_{0}}=2 $ and

$$x\left(t\right)=\sum\_{-\infty }^{+\infty }D\_{n}e^{j2nt}$$



Find and plot the double sided magnitude and phase spectral $-7<ω<+7$ rad/sec

We are showing extra components up to 10 rad/sec $\left|D\_{n}\right|=\frac{0.504}{\sqrt{1+16n^{2}}}$ ,phase $=-tan^{-1}4n$





**Good luck, Dr. Ali Muqaibel**