

Week 7 Problem Session

Cmpe 352

① Express each complex number in polar form

a) $(2+2j)^5$

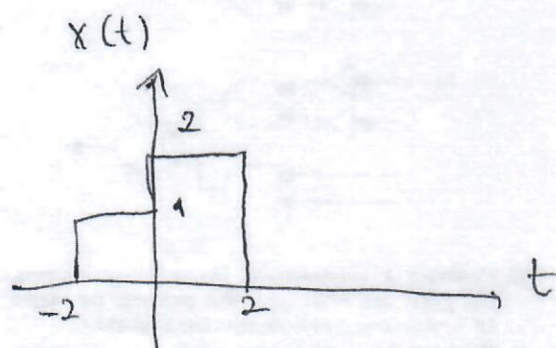
b) $j \cdot e^{j\pi/3}$

c) -6

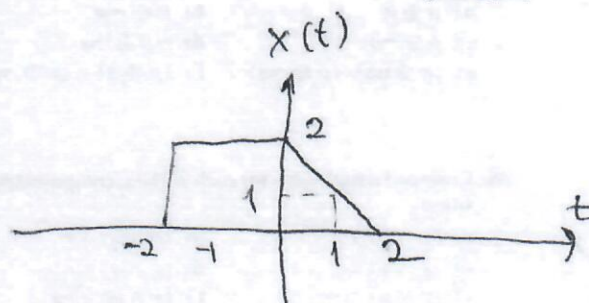
② Determine the exponential Fourier series coefficients for the signal:

$$x(t) = 3 + \cos 3\omega_0 t + 2\cos(5\omega_0 - \pi/4) - \sin(6\omega_0 t + \pi/3)$$

③ Find a_k of the Fourier series of $x(t)$



⑤ Sketch x_{even} and x_{odd}



④ Find energy and power of $x(t)$

