

Universidad de Puerto Rico  
Recinto Universitario de Mayagüez  
Departamento de Ingeniería Eléctrica y Computadoras

INEL 4075 Asignacion #7:

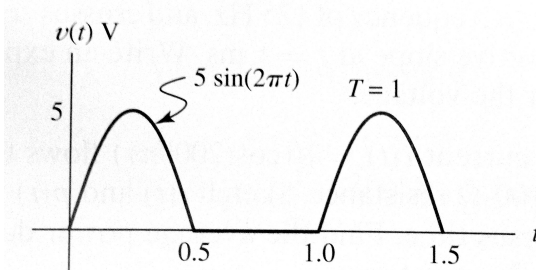
Semana de lunes 6 de mayo de 2013.

Nombre: \_\_\_\_\_

Sección: \_\_\_\_\_

1.

Calculate the rms value of the half-wave rectified sine wave shown in Figure P5.12.



**Figure P5.12**

2.

A balanced wye-connected three-phase source has line-to-neutral voltages of 240 V rms. Find the rms line-to-line voltage. This source is applied to a delta-connected load, each arm of which consists of a  $10\text{-}\Omega$  resistance in parallel with a  $+j5\text{-}\Omega$  reactance. Determine the rms line current magnitude, the power factor, and the total power delivered.

3. A delta-connected load has an impedance of 25 Ohms. What is the impedance of an equivalent wye-connected load?