

PROBLEM:

Suppose that MATLAB is used to plot a sinusoidal signal. The following MATLAB code generates the signal and makes the plot. Draw a sketch of the plot that will be done by MATLAB. Determine the amplitude (A), phase (ϕ), and period of the sinusoid and label the period on your plot.

```
dt = 0.001;  
tt = -.02 : dt : .06;  
Fo = 25;  
Z = 10*sqrt(2)*(1+j);  
xx = real( Z*exp( 2j*pi*Fo*tt ) );  
plot( tt, xx ), grid  
title( 'SECTION of a SINUSOID' ), xlabel( 'TIME (sec)' )
```