

PROBLEM:

The following MATLAB program makes a plot of a “sine-times-sine” signal:

```
tt = 0:0.01:3;  
xx = sin(16*pi*tt) .* sin(pi*tt);  
plot(tt,xx)
```

- Make a sketch of the plot that will be done by MATLAB. Label the time axis carefully.
- The “spectrum” diagram gives the frequency content of a signal. Draw a sketch of the spectrum of the signal represented by `xx`. Label the frequencies and complex amplitudes of each component.