

BSP – Lab Exercises

1. Given a signal: $x(t) = 0.5\sin(200t)$, which is sampled at 500 Hz, write a small script to perform the following tasks:
 - a. Plot $x(n)$ for 100 samples.
 - b. Plot E_x for $x(n)$ as a function of N . $0 \leq N \leq 100$
 - c. Plot P for $x(n)$ as a function of N . $0 \leq N \leq 100$

To maintain a cohesive output – you may use the “subplot” function to plot all the three outcomes in a single plot window.