Your name _____.

Location of data collection _____.

D. R. Brillinger

2 Feb. 2000

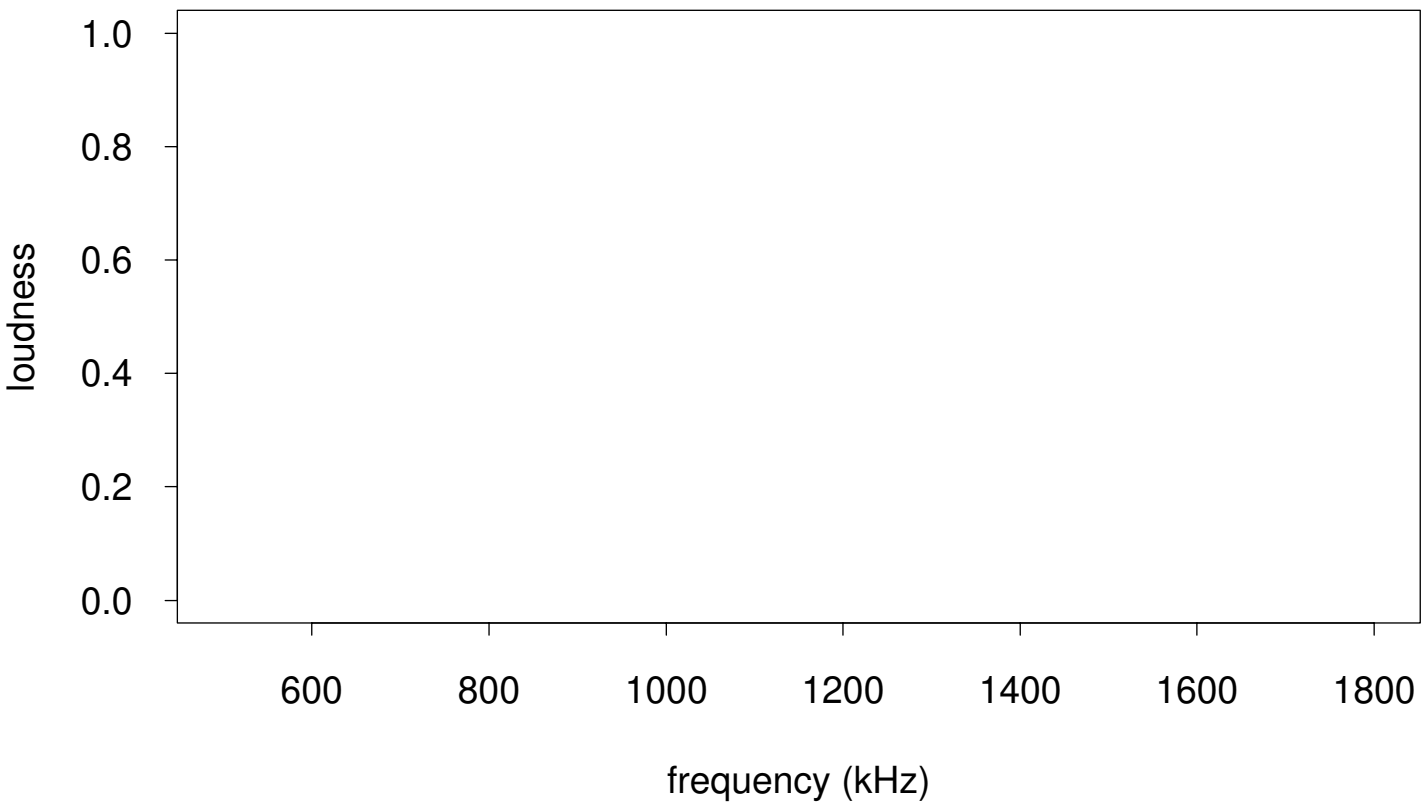
Statistics 248 - Homework 4

This homework asks you to estimate the power spectrum of radio waves in the AM band. The concern is the loudness of the signal you hear as a function of frequency. The AM frequency band runs from 530 kHz to 1710 kHz.

Turn on a radio. Set it on AM. To get an idea of the loudest and quietest signals go back and forth across the band.

Now go to the lowest frequency (530 kHz). Slowly increase the frequency drawing in the box overleaf a curve of the loudness you perceive the signal to have.

Why was the "Location of data collection" asked for?


1.0
0.8
0.6
0.4
0.2
0.0
loudness
600
800
1000
1200
1400
1600
1800
frequency (kHz)