5. Fourier Analysis and Synthesis of Waveforms

PURPOSE AND BACKGROUND

THEORY AND EXPERIMENT

N	f_N	A_N
1	500Hz	100%
2	1000Hz	50%

N	f_N	A_N
1	500 Hz	100%
3	1500 Hz	33.33%

N	f_N	A_N
1	500 Hz	100%
3	1500 Hz	11.11%

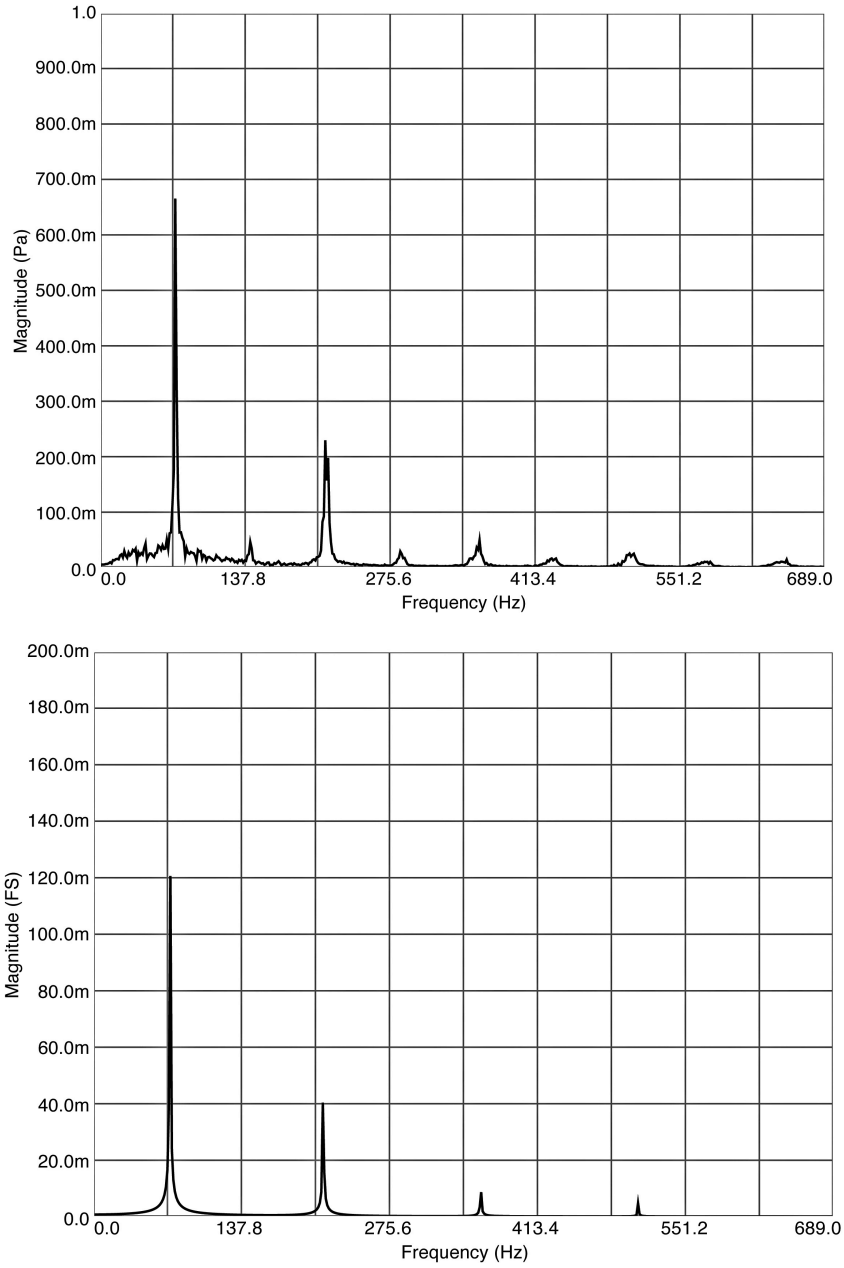
1.0
900.0m
800.0m
700.0m
600.0m
500.0m
400.0m
300.0m
200.0m
100.0m
0.0
Magnitude (Pa)
0.0
137.8
275.6
413.4
551.2
689.0
Frequency (Hz)
200.0m
180.0m
160.0m
140.0m
120.0m
100.0m
80.0m
60.0m
40.0m
20.0m
0.0
Magnitude (FS)
0.0
137.8
275.6
413.4
551.2
689.0
Frequency (Hz)

Figure 1: