Rotating Prelab 4:
Vibrating Chladni Plates

PHYS 1320
Fall 2015
Due at the beginning of class.

1) Consider a one-dimensional vibrating bar. Assume the center **and** the edges are anti-nodes. What is the wavelength of the resonant frequency in terms of the length of the bar, L? Explain your answer and draw an example.

2) For a vibrating circular disk driven from the center, draw the first four harmonics. Estimate the wavelength of each resonance in terms of the diameter of the disk, D. Does this pattern make up a harmonic series? *Hint: Think about the one-dimensional bar in question 1.*