Your name . . . .

Mark your recitation: R01 – R02 – R03 – R04 – R05

A box made of thick wood is closed on all sides. Its inner dimensions are 10x20x50 cm^3.

(5 points)
What is approximately the lowest resonance frequency in Hz for sound in the box? You DO NOT have to derive this. It is sufficient to give the answer.

If we assume that the speed of sound is 344 m/sec, the lowest resonance frequency is 344 Hz (0,0,1 mode; see your lecture notes of Tuesday 11/9).

(5 points)
We now remove two opposite panels so that the box is open on both sides in the direction of its longest dimension (the 50 cm).

What now is approximately the lowest resonance frequency in Hz for sound in the box? You DO NOT have to derive this. It is sufficient to give the answer.

If we assume that the speed of sound is 344 m/sec, the lowest resonance frequency is again 344 Hz.