QUESTIONS TO HAND IN–EXPERIMENT 12

NAME_____

LAB INSTRUCTOR_____**LAB DAY/TIME**_____

1. The human voice covers a frequency range of 100 hertz to about 2500 hertz. What is the range in wavelengths that it covers? (Adopt the speed of sound to be 343 m/s.)

2. A guitar string is plucked, and it vibrates at a fundamental frequency of 330 Hz. Which of the following frequencies do you also expect to be present: 440 Hz / 550 Hz / 660 Hz / 990 Hz / 1320 Hz?

3. If sound is propagated as a variation in the local air pressure, what other properties of the air do you think vary at the same time?

4. What frequency does a sound wave in air have if its λ is 2 m?

5. What do you think allows the human ear to discriminate between musical or pleasing tones and noise?