

Homework 11b: For Thursday the 11th's Presentations

1. Is it better to sing the national anthem in a football stadium or gymnasium? Why?
2. Which type of bat has a trampoline effect and what kind of sound does it make?

3. Solving the speed of sound

Please solve the speed of sound for the given stadium and average temperature of game-day: ($V_t = 344 + 0.6(T - 20^\circ)$ m/s)

The Swamp = 100 F

Autzen Stadium = 56 F

Husky Stadium = 50 F

Bonus:

Does sound travel faster in humid or dry air?

4. Does decibel level affect the free throw accuracy of visiting teams?
5. How many times longer is wavelength of water than in air?
6. How many times faster is sound in water versus air?
7. What is one main difference in the propagation of soundwaves in water versus air?
8. When was the Fessenden Oscillator invented? When was it first utilized on a large-scale?