

Homework #2

- 1) What are the definitions transverse and longitudinal wave, wavelength, intensity, and impedance?
- 2) What is the relationship between pressure and force? What is the relationship between mass-density and mass? What are the units for each of these four quantities?
- 3) If you have a mass of 1 kilogram, what spring constant k is necessary to give you a simple harmonic oscillator with a frequency of $f=1/(2\pi)$ Hz?
- 4) What happens to the speed of sound when air heats up to higher temperature?
- 5) When speaking about wave motion, what is the difference between particle speed and wave speed?