

Lon Capa Help for Chapter 13

Intensity 1

To type in the unit of intensity, you put in W/m^2

Make sure you used 3 sig figs. (So you will need to use 5 decimal places.)

Standing Waves in a Tube

For the first part, to find wavelength, the pattern is:

1st harm. Wavelength = $(2/1)*L$

2nd harm. Wavelength = $(2/2)*L$

3rd harm. Wavelength = $(2/3)*L$

4th harm. Wavelength = $(2/4)*L$

5th harm. Wavelength = $(2/5)*L$

Standing Wave Loops

The number of "loops" is the harmonic number, n .

Old Stringed Instrument

For the first part, you can just use $v = f\lambda$

Then for the second part, the length of the string is $1/2$ the wavelength, since a wavelength is crest and trough and the first harmonic picture only includes a crest.

Closed Pipe

when it says "fifth harmonic" or something like that, that is giving the number for n . (So in this example, n would be 5)