Resonance and Standing Waves!

		occurs whenever conditions are right to build a						
			!					
The		is the frequency that						
corresponds to a spe	ecific standing wave.							
Only a few frequencies can achieve any given setup.		(produce a standing wave) in						
The	W	avelength is tl	ne sma	allest wavelengtl	n port	tion that can		
achieve resonance (i.e. can produce a standing wave.)								
Remembering standing waves:								
Closed ends: Open ends:								
A guitar string closed at both ends, right? What MUST form at each end, if a standing wave is to be								
developed? What must be in between?								
		Closed both end	ls	Open both ends		One Open, One Closed		
So the fundamental is								
The first Harmonic or Overtone is:								
Steps between resonances is:								
We have a tube, open both ends, that is 85 cm long. What frequencies can be produced?								
Name	Wavelength p	portion	Whole Wavelength Re		Res	Resonant Frequency		

Name	Wavelength portion	Whole Wavelength	Resonant Frequency	