

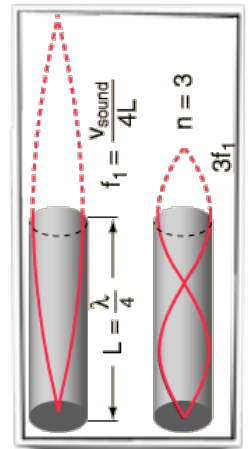


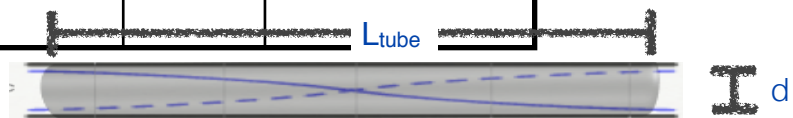
Sound review 2012

Harmonic	Time (20)	Period	f	λ	v
					
					
Average Velocity					



Trial	Frequency (Hz)	Length of air column (cm)	Corrected Length (m)	Wavelength (m)	Speed (m/s)
$v_{\text{sound in air}} \approx 331.4 + 0.6T_c \text{ m/s}$				avg	
				actual	%

L_{tube} (cm)	d (cm)	T (s)	f (Hz)	L (m)	λ (m)	Speed (m/s)



λ	f	v	T	m/l	m

$$v = \sqrt{\frac{T}{m/l}}$$

$$T = 2\pi \sqrt{\frac{l}{g}}$$

Length	T (period)	Time (20)

$$T = 2\pi \sqrt{\frac{m}{k}}$$



mass	spring A	
	(20) T	T

Sound review 2012

HARMONIC MOTION



WAVE



MEDIUM



PULSE / TRAVELING WAVE

STANDING WAVE

REFLECTED PULSE

FIXED END

FREE BARRIER

NODES

ANTINODES

PERIOD

FREQUENCY

HERTZ

CREST - TROUGH

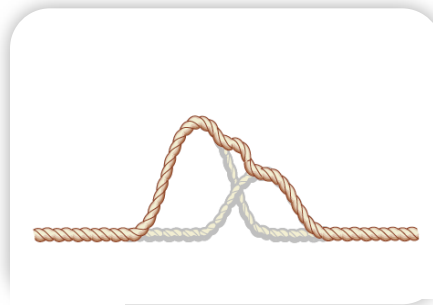
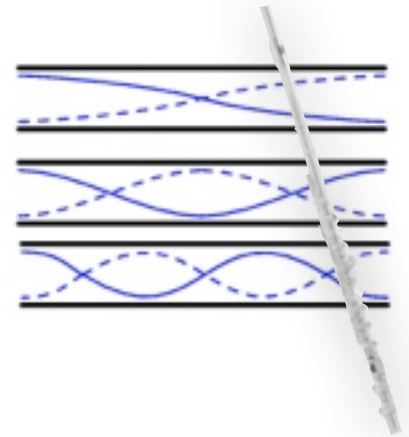
AMPLITUDE

WAVELENGTH

WAVE SPEED - VELOCITY

TRANSVERSE AND LONGITUDINAL WAVES

PRINCIPLE OF SUPERPOSITION



$$f_o = f_s \left(\frac{v \pm v_o}{v \pm v_s} \right)$$

