

Study Guide:

- Waves:
 - Transverse - light
 - Longitudinal - sound
 - Mechanical
- Characteristics:
 - Crest
 - Trough
 - Amplitude
 - Wavelength
 - Velocity/Speed
 - Frequency
 - Pitch
 - Period
- Doppler Effect
 - Concept
 - Formula use
- Resonance
- Wave interference
 - Constructive
 - Destructive
- Standing Waves
 - Harmonics
 - Nodes
 - Antinodes
 - Finding wavelength
 - Finding velocity
- Hooke's Law
 - Concept
 - Formula use
- Pendulums
 - Concepts
 - Formula use
- Open and Closed Pipes

Formulas:

$$V = f \lambda$$

$$f = \frac{1}{T}$$

$$T = \frac{1}{f}$$

$$f_o = \frac{V_{\text{sound}} \pm V_o}{V_{\text{sound}} \mp V_s} f_s$$

$$L = \frac{n}{2} \lambda$$

$$F = -kx$$

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

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