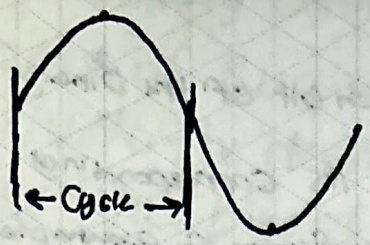
Title: Sound, Wavelength, Frequency and Amplitude



A cycle = One full wavelength

1 HERTZ (H_z) = 1 cycle per second

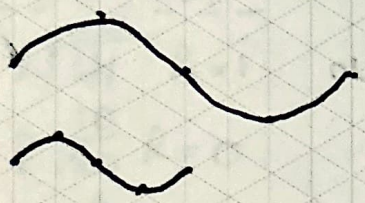
$$\frac{\#\text{ of waves}}{\#\text{ of seconds}}$$

+ the source of the waves determines the Frequency.

Higher Frequency ≠ Faster Waves

The medium determines wave speed.

If wave speed changes, then wavelength changes proportionally.



Lower Frequency = Longer Wavelength

Higher Frequency = ~~Hi~~ Shorter Wavelength

*Assuming speed is constant.

Frequency $f = \frac{v}{\lambda}$ wave speed / wavelength

$\lambda = \frac{v}{f}$

Practice

① $\lambda = \frac{v}{f} = \frac{340 m/s}{20/s} = 17m$

② (A) $f = 10 \text{ baseballs}/s = 10 Hz$

(B) $\lambda = \frac{30 m/s}{10 b/s} = 3m$ / baseball

Signature: Lenora Jain	Date: 10/10/24	Team Members:
Witness:	Date:	
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