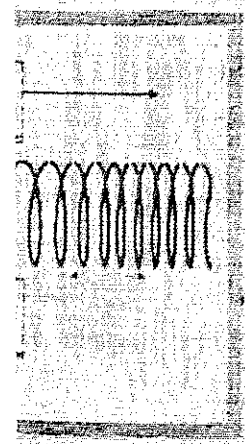
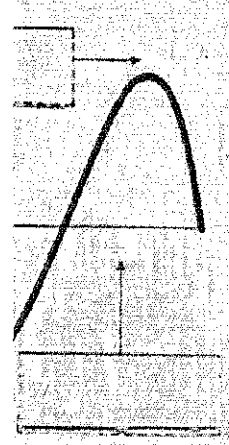


1 2: Features of Waves

lightning



Question: Which is faster sound waves or light waves?

FEATURES OF WAVES

Parts of a Wave

Transverse waves have crests - the highest points, and troughs - the lowest points of waves.

Compressional waves have dense regions (coils close together) called compressions and less dense regions called rarefactions.

Wavelength (λ) - distance between one point on wave and similar point nearest to it (crest to crest, trough to trough, compression to compression or rarefaction to rarefaction)



wavelength of wave decreases as frequency increases

Frequency - number of wavelengths that pass a fixed point each second (hertz - Hz)

Calculating Wave Speed

$$\text{wave speed (m/s)} = \text{frequency (Hz)} \times \text{wavelength (m)}$$

$$v = f\lambda$$

Amplitude - a measure of energy in a wave, the more energy a wave carries \Rightarrow greater amplitude
 \hookrightarrow distance from crest or trough to normal position in transverse wave.

\hookrightarrow the denser the compression the larger the amplitude in compressional wave.

el parts

