

Assignment: 5

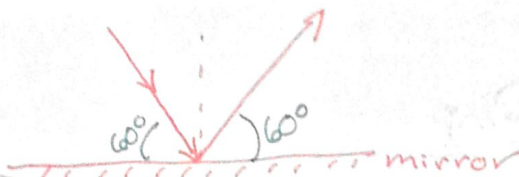
Hour: 1

Name: Rumz

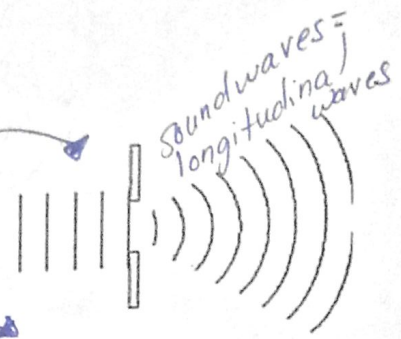
What are some things that can happen to waves?

Reflection - bouncing of a wave after it hits a barrier

Law of Reflection: the angle of incidence = angle of reflection (waves always reflect off an object at the same angle they hit it)

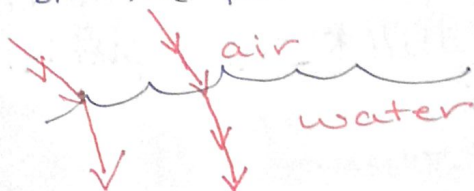


Diffraction - Spreading out of waves as they go through a gap or around a corner



Refraction - bending of waves, waves can get bent as they enter new medium (new medium = new density = new speed)

* sound travels best through solid = b/c the particles are so close together



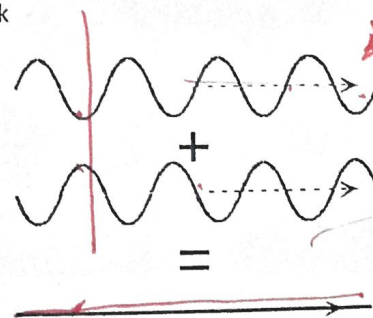
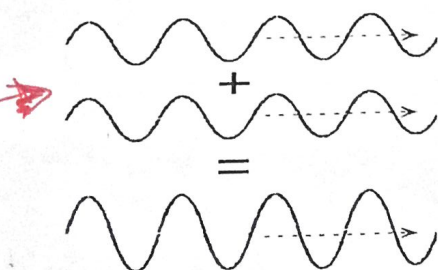
Resonance - the prolonging of a sound by several objects all vibrating at the same frequency

Interference - the collision of one wave with another wave

Constructive Interference (positive reinforcement) - this is when two waves have the same frequency and are moving in the same direction, they add to one another and create a wave that has a bigger amplitude.

Destructive Interference (Negative reinforcement) - this is when two waves have the same frequency and are moving in the same direction but the waves cycles are opposite one another, they cancel one another out

- This is how many of our noise canceling devices work



Doppler Effect: pitch getting higher as sound travels towards a source and pitch getting lower as a sound source travels away from a listener

Think of it this way, if a bug is in the water and wiggles...



Ok, but what if the bug is moving at the same time toward one side?



Ok so what does this mean for us... think of an ambulance going past you...

