

# Physics 1114 - General Physics I

## Quiz #28 - 2012.11.02

### Solutions

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1. State the difference between constructive and destructive interference.

Interference which causes an increase in the amplitude of a wave, it is called constructive. When the interference causes a decrease in the amplitude of a wave, it is called destructive interference.

2. Describe how the human ear translates sound vibrations into signals to be interpreted by the brain.

Sound waves enter the auditory canal, causing the eardrum to vibrate, which is then transmitted to three small bones. These vibrations are then transmitted through the fluid in the cochlea of the inner ear, which triggers motion in hair cells resulting in nerve impulses transmitted to the brain.