

Distinguish, differentiate, compare and explain what is the Difference between Echo and Reverberation. Comparison and Differences.

Difference between Echo and Reverberation

Echo

An echo is simply a reflected sound wave. Echoes are more noticeable if you are out in the open except for a distant, large object. If you went out to the desert and yelled, you might hear a distant canyon yell back at you. The time between your yell and hearing your echo depends on the speed of sound and on the distance to the canyon. In fact, if you know the speed of sound, you can easily calculate the distance just by timing the delay of your echo.

Reverberation

Reverberation is the repeated reflection of sound at close quarters. If you were to yell while inside a narrow tunnel, your reflected sound waves would bounce back to your ears so quickly that your brain wouldn't be able to distinguish between the original yell and its reflection. It would sound like a single yell of slightly longer duration.

Difference between echo and reverberation

Reverberation is similar to an echo but there are significant differences. Echo is discrete reflection of a sound—usually delayed 1/10th of a second or more. An entire word can be returned intact from a canyon wall. Reverberation is continuous reflection over a short time span. Organ notes dying out slowly in a cathedral.

The sound heard after reflection from a rigid obstacle is called an echo. Reverberation is a repeated reflection of sound waves that results in the persistence of sound for some time.