

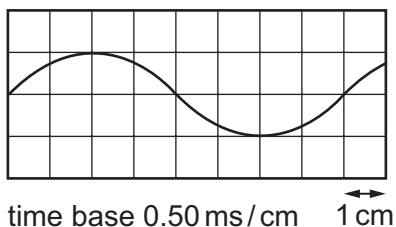
23 A stationary sound wave is set up between a loudspeaker and a wall.

A microphone is connected to a cathode-ray oscilloscope (CRO) and is moved along a line directly between the loudspeaker and the wall. The amplitude of the trace on the CRO rises to a maximum at a position X, falls to a minimum and then rises once again to a maximum at a position Y.

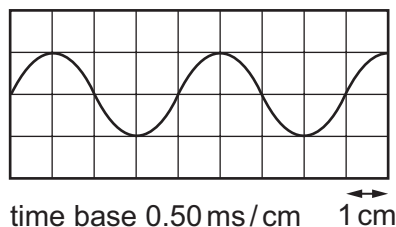
The distance between X and Y is 33 cm. The speed of sound in air is 330 m s^{-1} .

Which diagram could represent the CRO trace of the sound received at X?

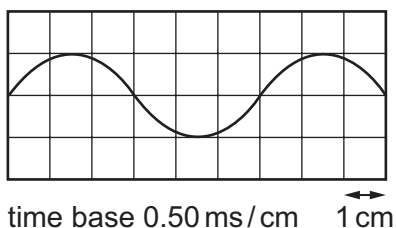
A



B



C



D

