Answer on Question #62716-Physics-Other

Two tuning forks of frequencies 256Hz and 260Hz are sounded together the time interval between two consecutive maximum sound heard by a listener is:

A: 0.5 sec

B: 2 sec

C: 1 sec

D: 0.25 sec

Solution

The beat frequency is

$$\Delta f = 260 - 256 = 4\ Hz.$$

The time interval between two maxima is

$$T = \frac{1}{\Delta f} = \frac{1}{4\ Hz} = 0.25\ s.$$

Answer: D: 0.25 sec.