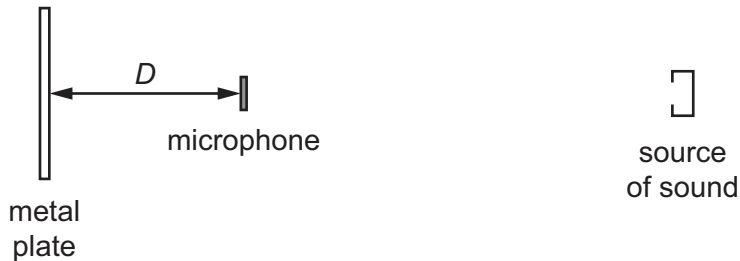


26 The diagram shows apparatus for the measurement of the frequency of a sound wave.



Sound of the unknown frequency is reflected back from a metal plate. A microphone placed at a distance D from the metal plate detects the sound intensity. A minimum intensity is detected with $D = 12.0\text{ cm}$. The plate is moved further away from the microphone until the next minimum is detected with $D = 15.0\text{ cm}$.

The speed of sound in air is 336 m s^{-1} .

What is the frequency of the sound?

- A** 56 Hz **B** 112 Hz **C** 5600 Hz **D** 11 200 Hz

27 An astronomer observes the light from a star that is moving away from the Earth