

- 25 Which region of the electromagnetic spectrum has waves of wavelength 1000 times smaller than the wavelength of visible light?
- A infra-red
B microwaves
C ultraviolet
D X-rays
- 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.
- For the observed light, what has been increased due to the star's motion?
- A amplitude
B frequency
C speed
D wavelength