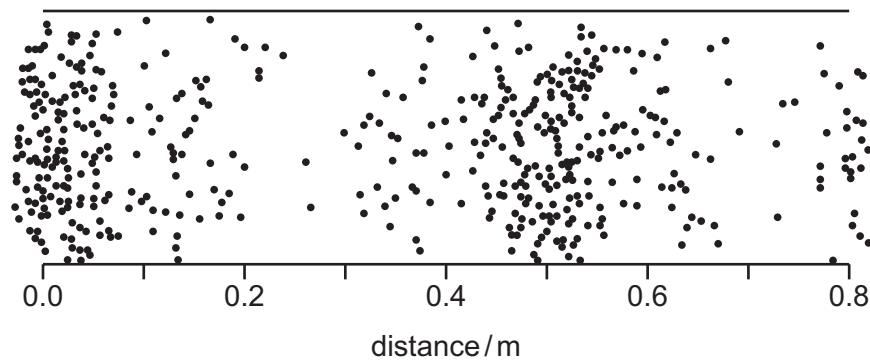


- 21 A signal generator, amplifier and loudspeaker are used to produce different sound waves in the air of a room. The relationships between the properties of these waves are investigated.

Which relationship is **not** correct?

- A Amplitude is proportional to wavelength.
- B Frequency is inversely proportional to wavelength.
- C Intensity is proportional to amplitude squared at a given frequency.
- D Period is equal to the reciprocal of frequency.

- 22 When a guitar string is plucked, it causes a longitudinal sound wave in the air, as shown.



The speed of sound in the air is 340 m s^{-1} .

What is the approximate frequency of the sound wave shown?

- A 430 Hz
- B 680 Hz
- C 1100 Hz
- D 1400 Hz