

**23** A stationary wave is formed from two identical sound waves.

A microphone is placed at a position of maximum loudness. It is then moved along the stationary wave from this first position of maximum loudness to the fourth position of maximum loudness. The microphone moves a distance of 12 cm.

The speed of sound is  $330 \text{ m s}^{-1}$ .

What is the frequency of the sound waves?

**A** 4100 Hz

**B** 5500 Hz

**C** 8300 Hz

**D** 11 000 Hz