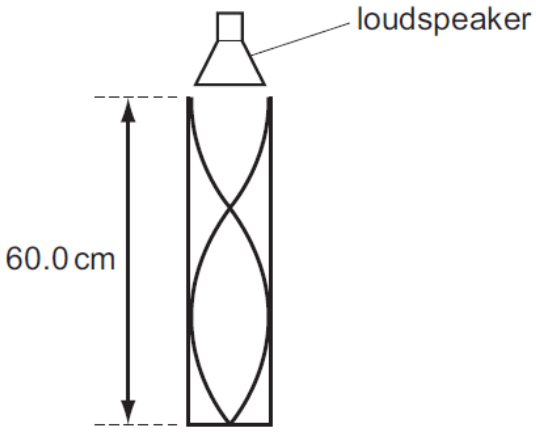
16 The sound from a loudspeaker placed above a tube causes resonance of the air in the tube. A stationary wave is formed with two nodes and two antinodes as shown.



The speed of sound in air is 330 m s^{-1}. The frequency of the sound from the loudspeaker is now increased to the next higher resonance of air in the tube.

What is the new frequency of the sound?

A 138 Hz **B** 413 Hz **C** 688 Hz **D** 963 Hz