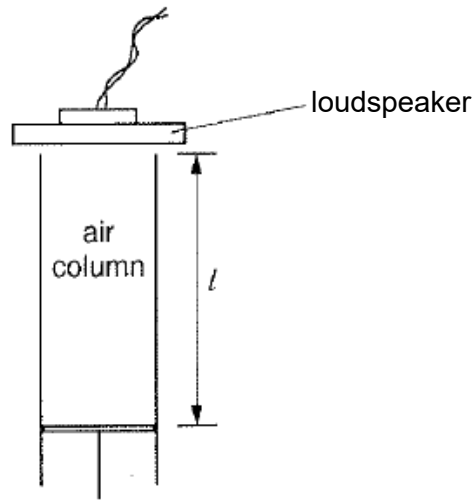A sound wave of a constant wavelength is continuously transmitted from a loudspeaker into an air column. The length l of the air column is slowly increased from zero.

When l reaches certain values, the sound heard from the air column increases greatly. l is found to be 15 cm when the sound increases greatly for the third time.

Assume that the end correction is negligible, what is the wavelength of the sound wave?

A   7.5 cm   B   10 cm   C   12 cm   D   20 cm