23 A glass tube is closed at one end and has a loudspeaker at the other end.

glass tube

loudspeaker
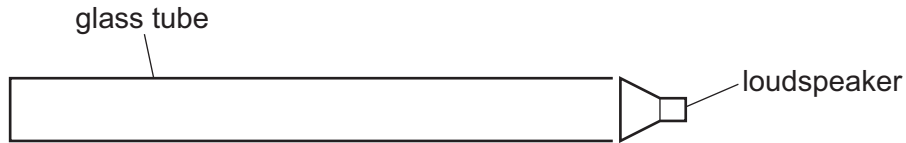
A stationary wave is formed with a node at the closed end of the tube when the sound has frequency f_0. There are no other nodes.

The frequency of the sound is then slowly increased.

What is the frequency of the sound that produces the next stationary wave?

A $1.25f_0$ **B** $1.50f_0$ **C** $2.00f_0$ **D** $3.00f_0$