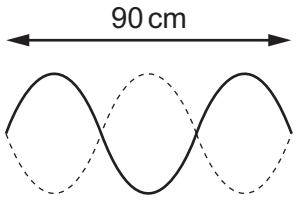
28 The diagram shows a stationary wave on a string at two instants of maximum vertical displacement.

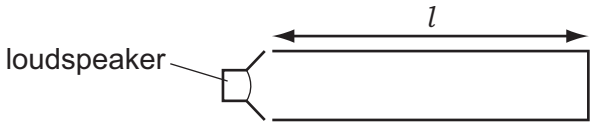


The frequency of the wave is 12 Hz.

What is the speed of the wave?

A $3.6\,m\,s^{-1}$ **B** $7.2\,m\,s^{-1}$ **C** $360\,m\,s^{-1}$ **D** $720\,m\,s^{-1}$

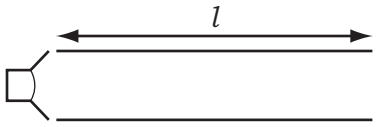
29 A loudspeaker emitting sound of frequency *f* is placed at the open end of a pipe of length l which is closed at the other end. A standing wave is set up in the pipe.



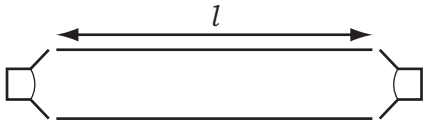
A series of pipes are then set up with either one or two loudspeakers of frequency *f*. The pairs of loudspeakers vibrate in phase with each other.

Which pipe contains a standing wave?

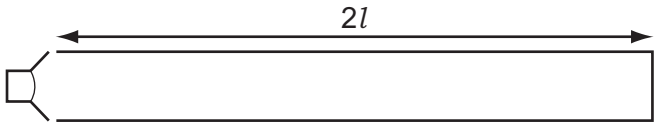
A



B



C



D