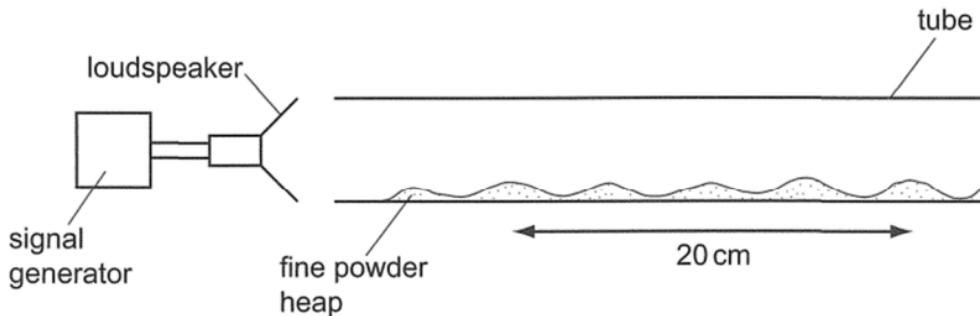


- 21 A long horizontal tube, containing a fine powder, is closed at one end. A loudspeaker, connected to a signal generator, is positioned at the other end.



At a particular frequency, a stationary wave is set up inside the tube and the powder forms heaps at the nodes. The speed of sound is 330 m s^{-1} .

What type of wave is the stationary wave and what is its frequency?

	type of wave	frequency / kHz
A	longitudinal	3.3
B	transverse	3.3
C	longitudinal	6.6
D	transverse	6.6

- 22 A double-slit light interference experiment is set up