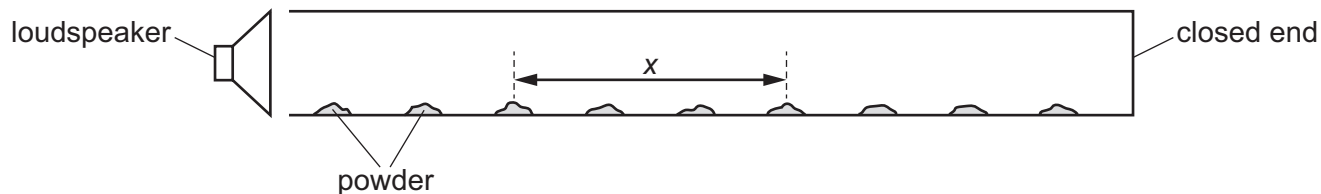


24 A loudspeaker is set up at the open end of a closed tube containing powder.

When the loudspeaker produces sound of frequency 1200 Hz, a stationary wave is produced in the tube. The powder gathers at the nodes of the stationary wave as shown.



The speed of sound in the air is 336 m s^{-1} .

What is the value of distance x ?

A 28 cm

B 42 cm

C 84 cm

D 112 cm