

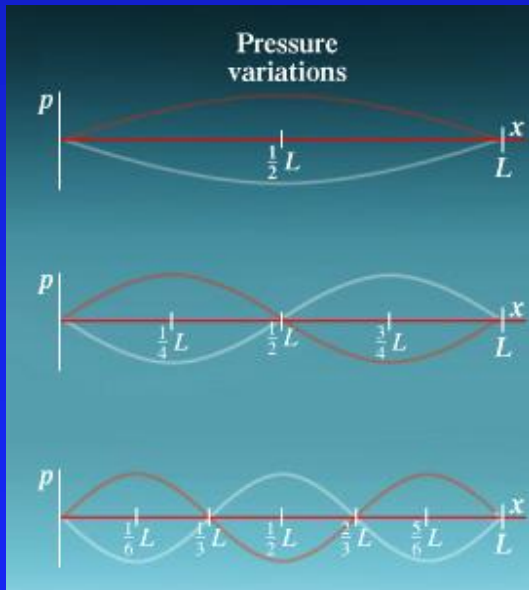
# Standing Waves in Pipes

Nodes still! Nodes in pipes!

Open at both ends:

Pressure Node at end

$$\lambda = 2L / n \quad n=1,2,3..$$



Open at one end:

Pressure AntiNode at closed end :  $\lambda = 4L / n$

$n$  odd

