

Standing Waves

Physics

How they form, and where the nodes and antinodes sit.

Harmonics on a string fixed at both ends.

Harmonic	Wavelength	Nodes
1st (fundamental)	$2L$	2
2nd	L	3
3rd	$2L/3$	4
nth	$2L/n$	$n + 1$

Nodes have zero amplitude; antinodes have maximum. Adjacent nodes are half a wavelength apart, not a whole one.