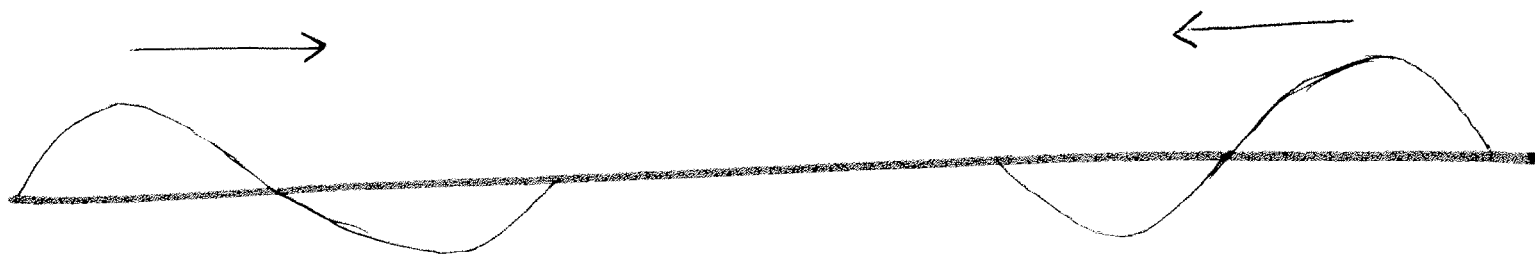
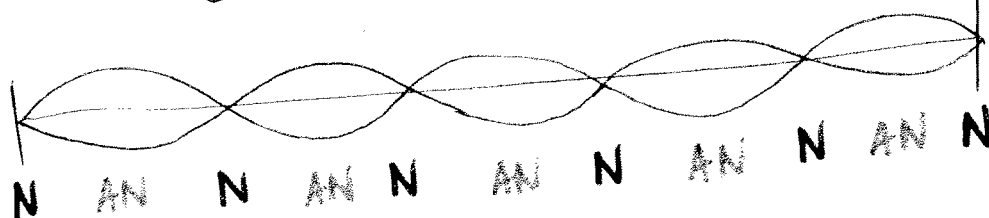


Standing waves

They interfere



Each wave has the same: λ , f , amplitude
 * produced by certain f 's only



rope length, L

$$L = 2.5\lambda$$

↓ recall
 2 humps = 1λ

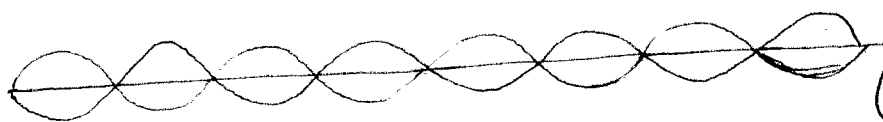
N = node = complete destructive interference

AN = antinode = constructive interference

Sublevel 7 (Waves)

Ex #1

$$L = 4\lambda$$



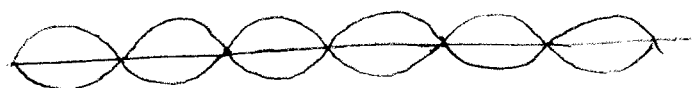
Ⓐ If $\lambda = 0.5\text{ m}$, then the length of the rope = 2 m

Ⓑ # of λ 's = 4

Ⓒ # of nodes = 9
 # of antinodes = 8

Ex #2

$$L = 3\lambda$$



Ⓐ If length of rope = 3.6 m , $\lambda = \frac{L}{3} = \frac{3.6\text{ m}}{3}$
 wavelength = 1.2 m

Ⓑ If length of rope = 5 m ,
 wavelength = $\frac{5}{3}$ m

Rachon
 note