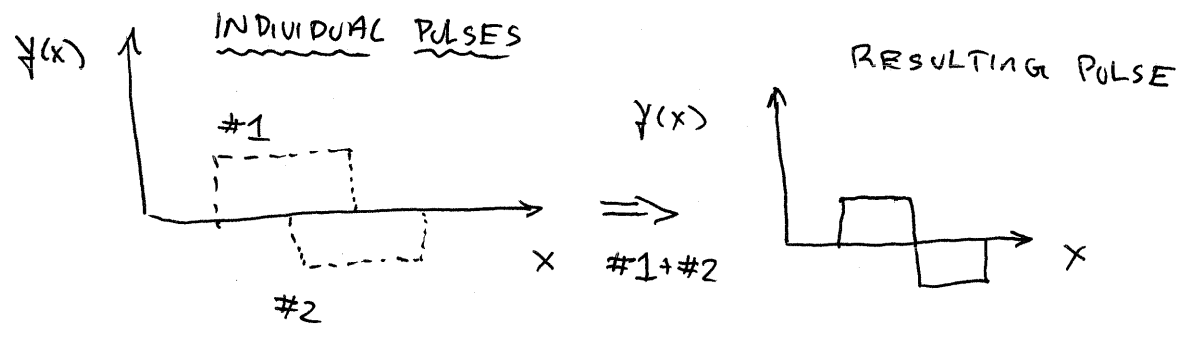


LINEAR SUPERPOSITION

When two WAVE DISTURBANCES (PULSE, CONTINUOUS WAVE) ARRIVE AT THE SAME POINT IN SPACE THE INSTANTANEOUS AMPLITUDE OF THE RESULTING DISTURBANCE IS THE LINEAR SUM OF THE INDIVIDUAL AMPLITUDES



INTERFERENCE

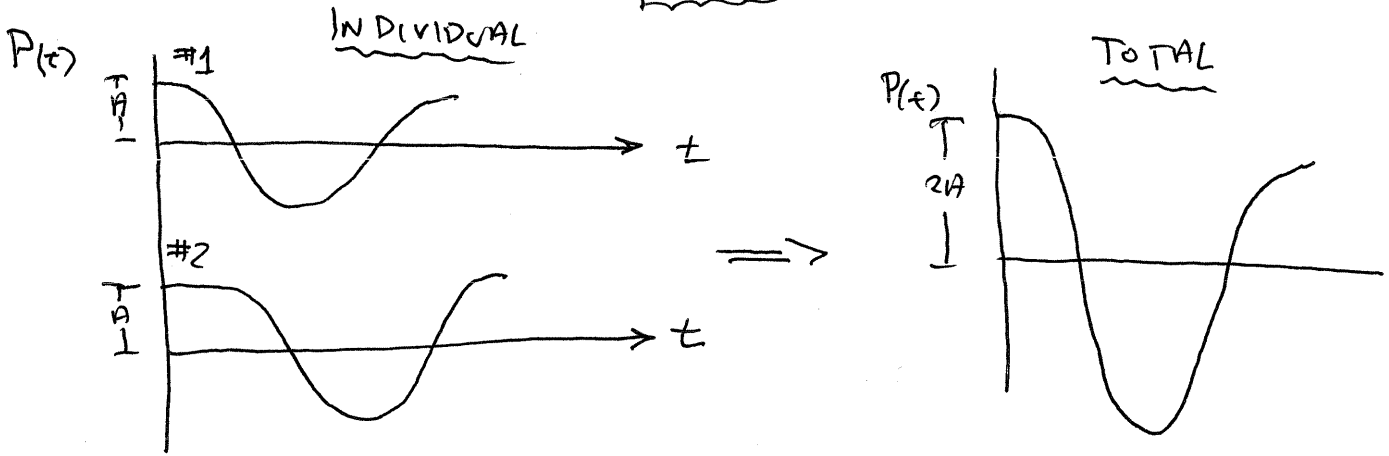


IF $|d_2 - d_1| = n \lambda$ $n = 0, 1, 2, \dots$ \Rightarrow WAVES ARRIVE IN PHASE \Rightarrow CONSTRUCTIVE
 \swarrow 1, 3, 5, ...

IF $|d_2 - d_1| = (2n-1) \frac{\lambda}{2}$ $n = 1, 2, 3, \dots$ \Rightarrow WAVES ARRIVE OUT OF PHASE \Rightarrow DESTRUCTIVE

"IN PHASE"

WAVES ARRIVING AT POINT "O"



"OUT OF PHASE"

