

Problem Set 9

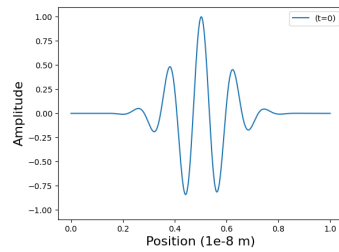
Greta Goldberg

November 2023

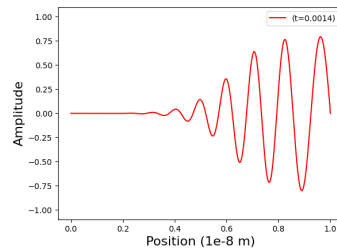
github link: <https://github.com/gretagoldberg/phys-ua210.git>

1 Question One

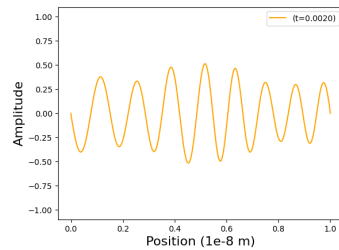
1.1 Part B



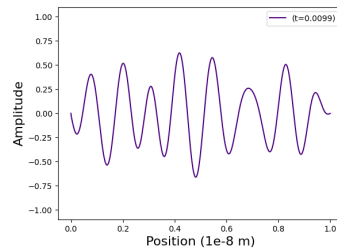
(a) $t = 0s$



(b) $t = .0014s$



(a) $t = .002s$



(b) $t = .0099s$

1.2 Part C

What we are seeing here is the wave moving in time (ok duh). It looks like at $t=0$ the wavefunction has maximum certainty in its position, and then after

hitting the side of the box, the wavefunction spreads out so that its position becomes more uncertain/less centralized.