

Oberlin College Physics 212, Fall 2021

Assignment 10

Wednesday, 15 December

I feel like the Grinch for assigning you problems to complete just before Christmas, but I can't think of any other way to fit the learning into this strange semester.

Reading: From *Invitation to Quantum Mechanics* read section 5.1 (“Sketching energy eigenfunctions”) and chapter 6, (“Identical particles”).

Problems: Due Wednesday, 22 December. From *Invitation to QM*. (Warning: the last problem is much more difficult than the first four.)

1. problem 3.5: “Finding amplitudes”
2. problem 3.7: “Superposition and interference”
3. problem 4.1: “Mean and standard deviation for an ant”
4. problem 4.2: “Mean and standard deviation for a quantal particle”
5. problem 4.9: “Fourier sine series for tent”