

University of California, Berkeley
EE 236
Fall 2004

Homework Set 4

Due: Friday, October 1, 2004 at 1:00 PM

- 1) Yariv problem 2.11
- 2) Yariv problem 2.12
- 3) Show that the expectation value for any observable on the state of a single harmonic oscillator is periodic at the classical oscillation frequency. Does it have to be sinusoidal? Give a counterexample if not.
- 4) Find the wavefunctions for a harmonic oscillator as a function of current. (momentum, if you prefer)

Reading: chapter 5 of Yariv