UNIVERSITY OF CALIFORNIA, SANTA BARBARA
Department of Physics

Physics 115A — Winter 1997
Prof. Rollin J. Morrison

ASSIGNMENT #7

Due Tuesday, March 4, 1997

1. Show that
   (a) $(aA + bB)^\dagger = a^* A^\dagger + b^* B^\dagger$.
   (b) $(AB)^\dagger = B^\dagger A^\dagger$.
2. If A and B are both Hermitian, which of the following 3 operators are Hermitian?
   (a) $i(AB - BA)$.
   (b) $(AB - BA)$.
   (c) $\frac{AB+BA}{2}$.
3. Chapter 6, problem 3.