PHY 5667 : Quantum Field Theory A, Fall 2003

October 2^{nd}, 2003

Assignment # 3

(due Thursday October 16^{th}, 2003)

1. Derive explicitely Eqs. (3.104), (3.105), and (3.113) of Peskin and Schroeder's book.

2. Read Section 3.6 of Peskin and Schroeder's book and derive the results summarized in the table on page 71.

3. Show that the QED Lagrangian in Eq. (4.4) of Peskin and Schroeder's book is invariant under the gauge transformation given in Eq. (4.6).