Elementary Particles II   Problem Set #4   due 12/12/02

CP Violation

1. Prove eqs. (2.27), (2.28).

2. Prove that the area of any unitarity triangle is given by $|J|/2$, where J is defined in eq. (2.45).

3. Write eq. (2.40) in terms of J. Estimate J from the experimental value of ε_K.

4. Prove eq. (3.12).

5. Prove eq. (3.20).