Problem set #1

Reading for this problem set: Skim chapters 1,2; read Chapters 3,5.

Reading for next week's lectures: Chapters 6-8

1. Srednicki 3.2.

2. Srednicki 3.3. To do this problem you do not need to know any details of the unitary operator $U(\Lambda)$ except as stated in the problem. Λ corresponds to a 4×4 Lorentz transformation matrix, but its detailed form is not needed for the problem.

3. Srednicki 3.5

4. Srednicki 5.1