

Know how to prove the following Theorems.

Page 68	Theorem 1.7	(G-inv. inner product)
	Proposition 1.9	← 11/17/06.1
Page 69	Theorem 1.10	(11/17/06.3)
	Proposition 1.13	(11/17/06.5)
Page 78	Proposition 4.4 ^{12/1}	given 4.2 ^{12/1/29} > 11/20/06 missing.
Page 79	Theorem 4.5	12/1
	Theorem 4.6	12/4
Page 80	Formulas 4.8	12/4/06.3
Page 81	Theorem 4.12	12/9

Know the definition of representative functions of a compact Lie group G and how to show that if V is a representation space of G and if $a_{ij}: G \rightarrow \mathbb{C}$ are defined by

$$g \cdot e_j = \sum_i a_{ij}(g) e_i$$

then the a_{ij} are representative functions

This is defined on page 124 and the proof is given in the first paragraph on page 125.

Also know the statement of the Peter-Weyl Theorem on page 134 and how it relates to the functions $a_{ij}: G \rightarrow \mathbb{C}$ above