Math 549: Suggested Exercises for Lectures 24 and 25

References: Bump Chapter 17-18, see also Kirillov Chapter 7

- 1. Let G be a compact Lie group with H a closed subgroup. Give a differential geometry argument that the quotient G/H has a measure which is invariant under translation.
- $2. \ \, \text{Do Bump Exercises 17.1, 17.2, 17.4, and 17.5}.$
- 3. Do Bump Exercises 18.1 and 18.2.