

Lie groups

Homework #6, due Wednesday, November 12.

- 1-4. Exercises from Humphreys, page 41: exercise 6 (for $\mathfrak{sl}(n)$ only), 9, 10, 11.
5. Prove that the Lie algebra $so(2n + 1)$ is simple for all $n > 0$ using the root space decomposition derived in class.