

Homework March 12, 706, Spring 2009, due: March 19

- 1) Problem 1 of chapter 3 of Sakurai.
- 2) Problem 2 of chapter 3 of Sakurai. [Hint: in part (b) the idea is to write U as $\exp(-i\sigma \cdot \hat{\mathbf{n}}\phi/2)$, and express $\hat{\mathbf{n}}$ and ϕ in terms of a_0 and \mathbf{a} . Take $a_0 > 0$ and $0 \leq \phi < 2\pi$.]