

5393 Quantum Mechanics

Homework 6

Reading Assignment

Sakurai

Sections 2.1, 2.2

Problems

Sakurai

Chapter 1
prob. 1.27, 1.32, 1.33Chapter 2
prob. 2.2, 2.3, 2.4, 2.6*Date Due*Oct. 12, 2021 *by* 5:00 pm**Additional Problems:**

- Q-1 Suppose the state vectors $|\alpha\rangle$ and $|\beta\rangle$ are eigenvectors of a unitary operator \mathcal{U} with eigenvalues λ and λ' , respectively. What relation must λ and λ' satisfy if $|\alpha\rangle$ is not orthogonal to $|\beta\rangle$?