Question One.
Check Strange Eqs. (5.44), (5.45), and (5.48).

Question Two.
Check whether the generalized \( \vec{S} \) operator defined in Strange Eq. (5.47) satisfies the condition of a quantum mechanical angular momentum operator.

Question Three.
Solve problem (3) in section 5.8.

Question Four.
Solve problem (5) in section 5.8.

Question Five.
Come prepared to tell the class a "Dirac story" (see attached articles for inspiration).