

Worksheet # 10

Wednesday, February 21, 2024

Name**Question (5 pts):**

As we discussed, the Clebsch-Gordan coefficients ($\langle j_1, j_2; m_1, m_2 | j, m \rangle$) connect the basis $\{|j_1, j_2; j, m\rangle \equiv |j, m\rangle\}$ with the basis $\{|j_1, j_2; m_1, m_2\rangle\}$. What are the following Clebsch-Gordan coefficients:

(a) $\langle 1/2, 1/2; 1/2, -1/2 | 1, 1 \rangle$

(b) $\langle 1/2, 1/2; -1/2, 1/2 | 0, 0 \rangle$

(c) $\langle 1/2, 1/2; -1/2, -1/2 | 1, -1 \rangle$