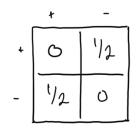
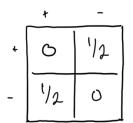
Practice Assessment 5

$$P_{++} = |\langle +_{3} + | \Psi_{A} \rangle| = 0$$
 $P_{+-} = |\langle +_{3} + | \Psi_{A} \rangle| = |\langle +_{2} + | \Psi_{A} \rangle| = 0$
 $P_{--} = |\langle +_{2} - | \Psi_{A} \rangle| = 0$

$$\begin{array}{lll} P_{++} = |\zeta + j + 1 \; \Psi_{A} \rangle | = 0 & P_{++} = |\zeta + j + 1 \; \Psi_{B} \; \rangle | = 0 \\ P_{+-} = |\zeta + j - 1 \; \Psi_{A} \; \rangle | = 1/2 & P_{+-} = |\zeta + j - 1 \; \Psi_{B} \; \rangle | = 1/2 \\ P_{-+} = |\zeta - j + 1 \; \Psi_{A} \; \rangle | = 0 & P_{--} = |\zeta - j - 1 \; \Psi_{B} \; \rangle | = 0 \end{array}$$





$$(S_2) = (P_{++} + P_{+-}) \frac{1}{2} - (P_{-+} + P_{-}) \frac{1}{2}$$

= $(1/2) \frac{1}{2} - (1/2) \frac{1}{2} = \frac{1}{2} \frac{1}{4} - \frac{1}{4} = 0$

Same expectation Value

$$\langle S_{2},^{2} \rangle = (P_{++} + P_{+-}) k_{/4}^{2} - (P_{-+} + P_{--}) k_{/4}^{2}$$

= $(1/2) k_{/4}^{2} - (1/2) k_{/4}^{2} = 0$

$$\langle S_{22} \rangle = (P_{++} + P_{+-}) \frac{2}{\hbar^{2}} 4 - (P_{-+} + P_{--}) \frac{2}{\hbar^{2}} 4 = 0$$

$$O_{A} = \sqrt{\langle S_{2},^{2} \rangle - \langle S_{3}, \rangle^{2}} = O$$

$$O_{B} = \sqrt{\langle S_{2},^{2} \rangle - \langle S_{2}, \rangle^{2}} = O$$

Same un certaintres

Probability, Expectation values, and Uncertainty Values are all the Same. There is no way to take between the two emsembles.