$$S_{1} = \begin{pmatrix} 2 \\ 3 \\ +1 \end{pmatrix}$$

$$S_{2} = \begin{pmatrix} 4 \\ 4 \\ +1 \end{pmatrix}$$

$$A_{1} \begin{pmatrix} s_{1}, s_{1} \end{pmatrix} + A_{2} \begin{pmatrix} \overline{s_{1}} \overline{s_{2}} \end{pmatrix} + A_{3} \begin{pmatrix} \overline{s_{1}}, \overline{s_{3}} \end{pmatrix} = +1$$

$$A_{1} \begin{pmatrix} s_{2}, s_{1} \end{pmatrix} + A_{2} \begin{pmatrix} \overline{s_{1}} \overline{s_{2}} \end{pmatrix} + A_{3} \begin{pmatrix} \overline{s_{2}}, s_{3} \end{pmatrix} = +1$$

$$A_{1} \begin{pmatrix} s_{2}, s_{1} \end{pmatrix} + A_{2} \begin{pmatrix} s_{2}, s_{2} \end{pmatrix} + A_{3} \begin{pmatrix} \overline{s_{2}}, s_{3} \end{pmatrix} = +1$$

$$A_{1} \begin{pmatrix} s_{3}, s_{1} \end{pmatrix} + A_{2} \begin{pmatrix} s_{3}, s_{2} \end{pmatrix} + A_{3} \begin{pmatrix} s_{3}, s_{3} \end{pmatrix} = -1$$

$$d_{1}(14) + \alpha_{2}(15) + \alpha_{3}(24) = +1$$
 $d_{1}(15) + \alpha_{2}(18) + d_{3}(25) = +1$ 
 $d_{1}(24) + d_{2}(25) + d_{3}(42) = -1$ 

$$d_{1} = \frac{79}{8}, \quad d_{2} = -\frac{7}{4}, \quad d_{3} = \frac{37}{8}$$

$$\vec{w} = \begin{pmatrix} -0.5 \\ -0.5 \\ 3.5 \end{pmatrix} \begin{bmatrix} -0.5 \\ +3.5 = 0 \end{bmatrix}$$