

$$s_1 = \begin{pmatrix} 2 \\ 3 \\ +1 \end{pmatrix}_{2 \times 1} \quad s_2 = \begin{pmatrix} 1 \\ 4 \\ +1 \end{pmatrix}_{2 \times 1} \quad s_3 = \begin{pmatrix} 4 \\ 5 \\ +1 \end{pmatrix}_{2 \times 1}$$

$$a_1 (s_1, s_1) + a_2 (\bar{s}_1, \bar{s}_2) + a_3 (\bar{s}_1, \bar{s}_3) = +1$$

$$a_1 (s_2, s_1) + a_2 (s_2, s_2) + a_3 (s_2, s_3) = +1$$

$$a_1 (s_3, s_1) + a_2 (s_3, s_2) + a_3 (s_3, s_3) = -1$$

$$a_1 (14) + a_2 (15) + a_3 (24) = +1$$

$$a_1 (15) + a_2 (18) + a_3 (25) = +1$$

$$a_1 (24) + a_2 (25) + a_3 (42) = -1$$

$$a_1 = \frac{79}{8}, \quad a_2 = -\frac{7}{4}, \quad a_3 = \frac{-37}{8}$$

$$\vec{w} = \begin{pmatrix} -0.5 \\ -0.5 \\ 3.5 \end{pmatrix} \quad \left[\begin{array}{l} -0.5x - 0.5y \\ + 3.5 = 0 \end{array} \right]$$