

Facitliste til Lektion 3

2. (a)

$$\begin{bmatrix} 10 \\ 5 \\ 14 \\ 4 \\ 2 \\ 9 \end{bmatrix} = \begin{bmatrix} 1 & 0 & -1 & 0 \\ -1 & 1 & 0 & 0 \\ 0 & 1 & -1 & 0 \\ 0 & 0 & -1 & 1 \\ 1 & 0 & 0 & -1 \\ 0 & 1 & 0 & -1 \end{bmatrix} \begin{bmatrix} h_A \\ h_B \\ h_C \\ h_D \end{bmatrix} - \begin{bmatrix} \hat{r}_1 \\ \hat{r}_2 \\ \hat{r}_3 \\ \hat{r}_4 \\ \hat{r}_5 \\ \hat{r}_6 \end{bmatrix}$$

(b)

$$\begin{bmatrix} 11 \\ 5 \\ 15 \\ 5 \\ 2 \\ 9 \end{bmatrix} = \begin{bmatrix} 1 & 0 & 0 \\ -1 & 1 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \\ 1 & 0 & -1 \\ 0 & 1 & -1 \end{bmatrix} \begin{bmatrix} h_A \\ h_B \\ h_D \end{bmatrix} - \begin{bmatrix} \hat{r}_1 \\ \hat{r}_2 \\ \hat{r}_3 \\ \hat{r}_4 \\ \hat{r}_5 \\ \hat{r}_6 \end{bmatrix}$$

(d)

$$\begin{bmatrix} h_A \\ h_B \\ h_D \end{bmatrix} = \begin{bmatrix} 9.75 \\ 15.00 \\ 6.25 \end{bmatrix}$$

3. (a)

$$\begin{bmatrix} 3.7 \\ 8.0 \\ -6.1 \\ -2.3 \\ -5.8 \\ -6.2 \\ -2.2 \\ -6.1 \\ 8.9 \end{bmatrix} = \begin{bmatrix} -1 & 0 & 0 & 1 \\ 0 & 0 & 0 & 1 \\ 0 & -1 & 0 & 0 \\ 0 & 1 & 0 & -1 \\ 0 & -1 & 0 & 0 \\ 0 & 0 & -1 & 0 \\ 0 & 0 & 1 & -1 \\ 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix} \begin{bmatrix} h_A \\ h_C \\ h_E \\ h_G \end{bmatrix} - \begin{bmatrix} \hat{r}_1 \\ \hat{r}_2 \\ \hat{r}_3 \\ \hat{r}_4 \\ \hat{r}_5 \\ \hat{r}_6 \\ \hat{r}_7 \\ \hat{r}_8 \\ \hat{r}_9 \end{bmatrix}$$

(b)

$$\begin{bmatrix} h_A \\ h_C \\ h_E \\ h_G \end{bmatrix} = \begin{bmatrix} 4.69 \\ 5.9967 \\ 6.1633 \\ 8.39 \end{bmatrix}$$