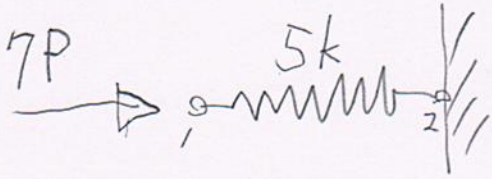


(1) 节点变位



$$\begin{pmatrix} 7P \\ 0 \end{pmatrix} = \begin{pmatrix} 5k & -5k \\ -5k & 5k \end{pmatrix} \begin{pmatrix} w_1 \\ w_2 \end{pmatrix}$$

边界条件 $w_2 = 0$

$$7P = 5k w_1$$

$$w_1 = \frac{7P}{5k}, w_2 = 0$$

$$\begin{pmatrix} 7P \\ 0 \end{pmatrix} = \begin{pmatrix} 5k & 0 \\ 0 & 1 \end{pmatrix} \begin{pmatrix} w_1 \\ w_2 \end{pmatrix}$$

(2) 断面力

$$\begin{pmatrix} N_1 \\ N_2 \end{pmatrix} = \begin{pmatrix} 5k & -5k \\ -5k & 5k \end{pmatrix} \begin{pmatrix} \frac{7P}{5k} \\ 0 \end{pmatrix} = \begin{pmatrix} 7P \\ -7P \end{pmatrix}$$

(3)

