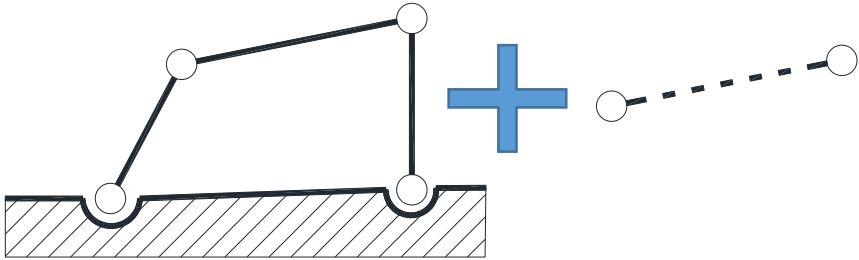


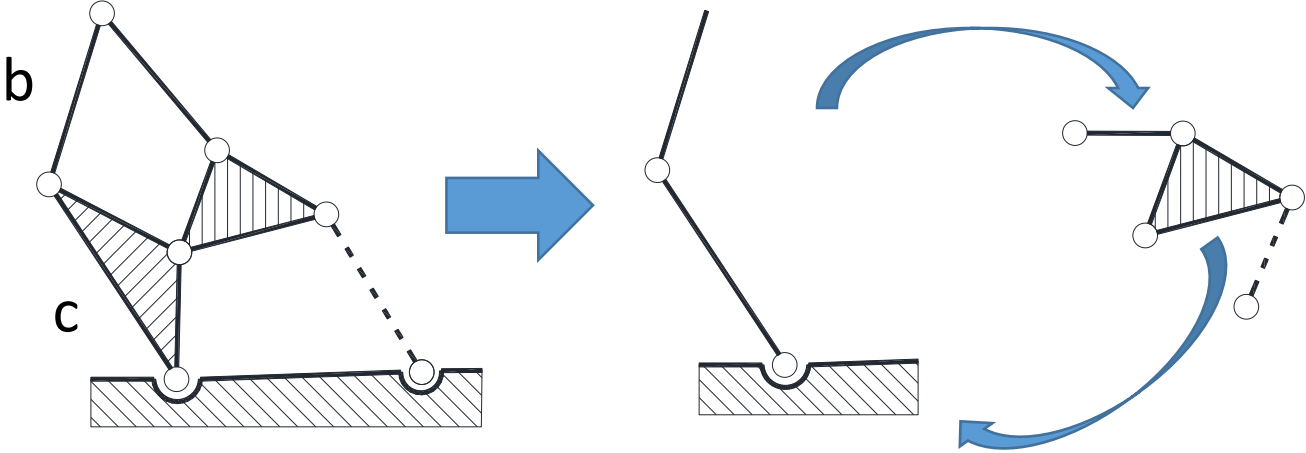
SYNTEZA STRUKTURALNA

Metody syntezy strukturalnej

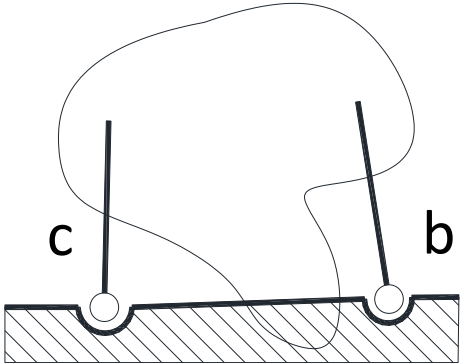
Metoda elementarna



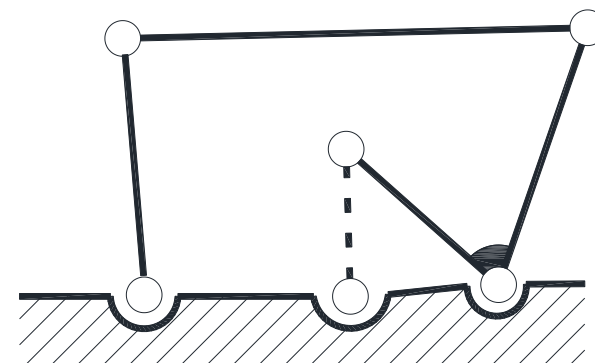
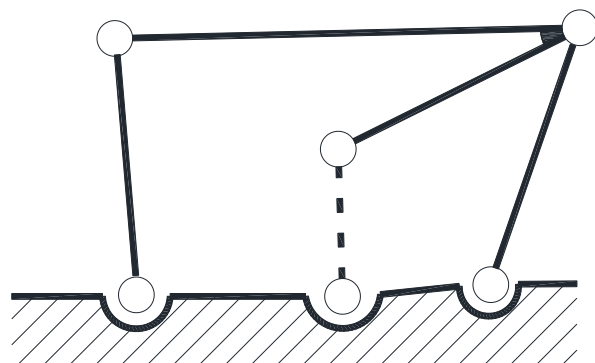
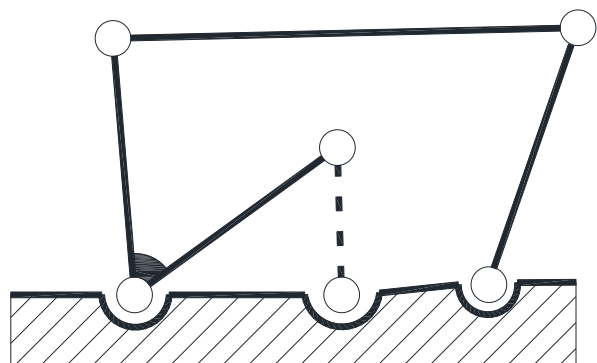
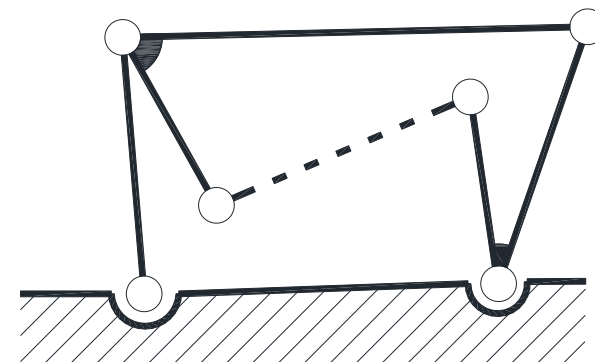
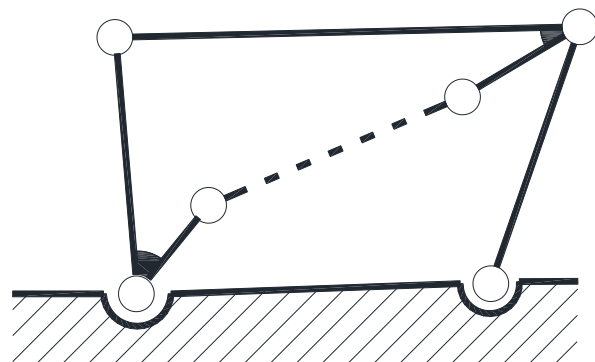
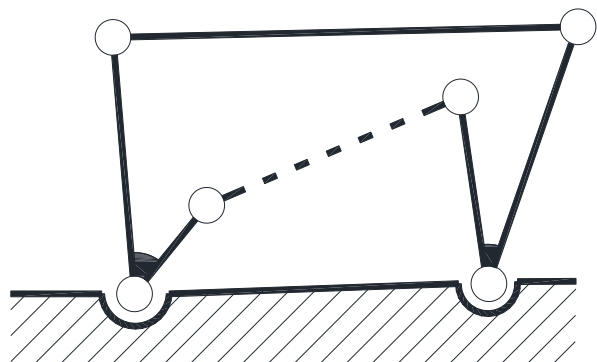
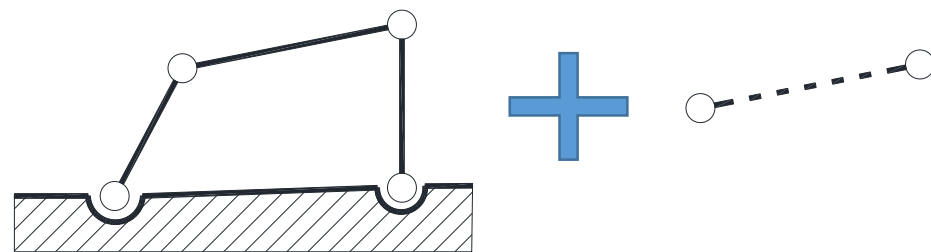
Metoda inwersji



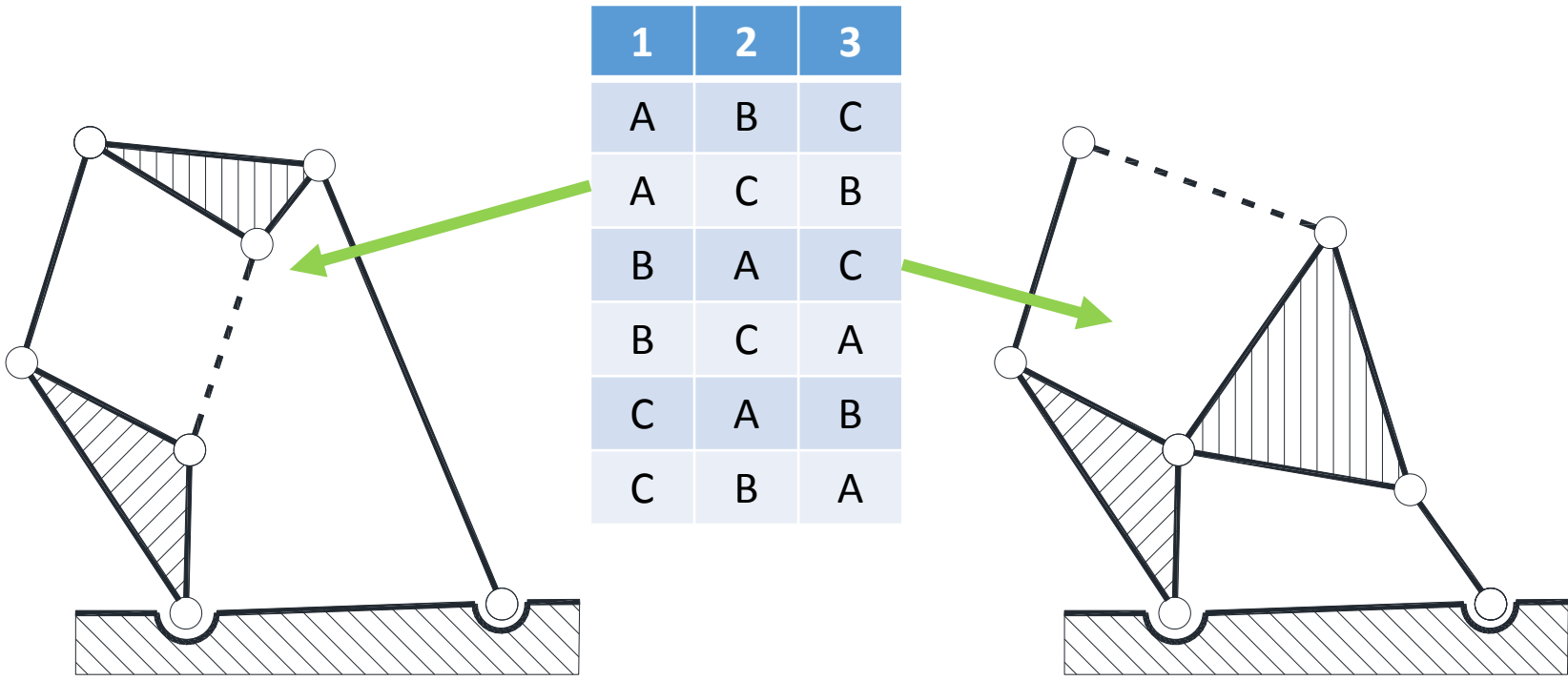
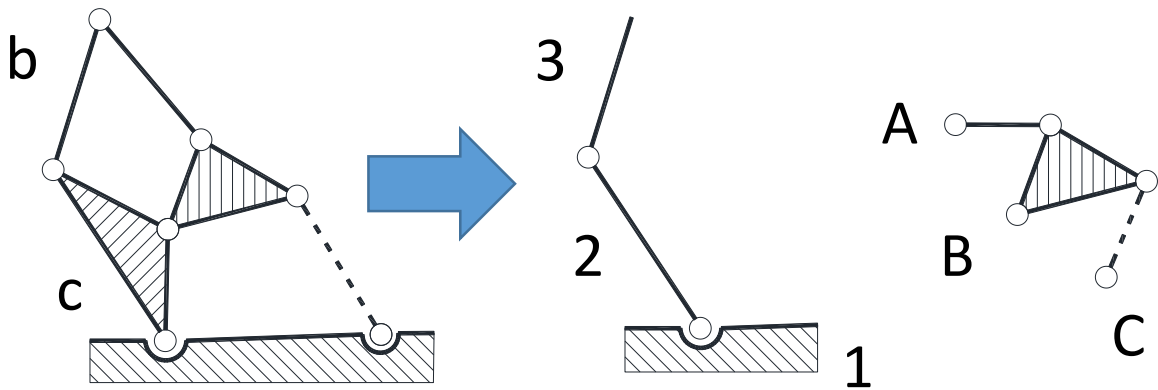
Metoda łańcucha pośredniczącego



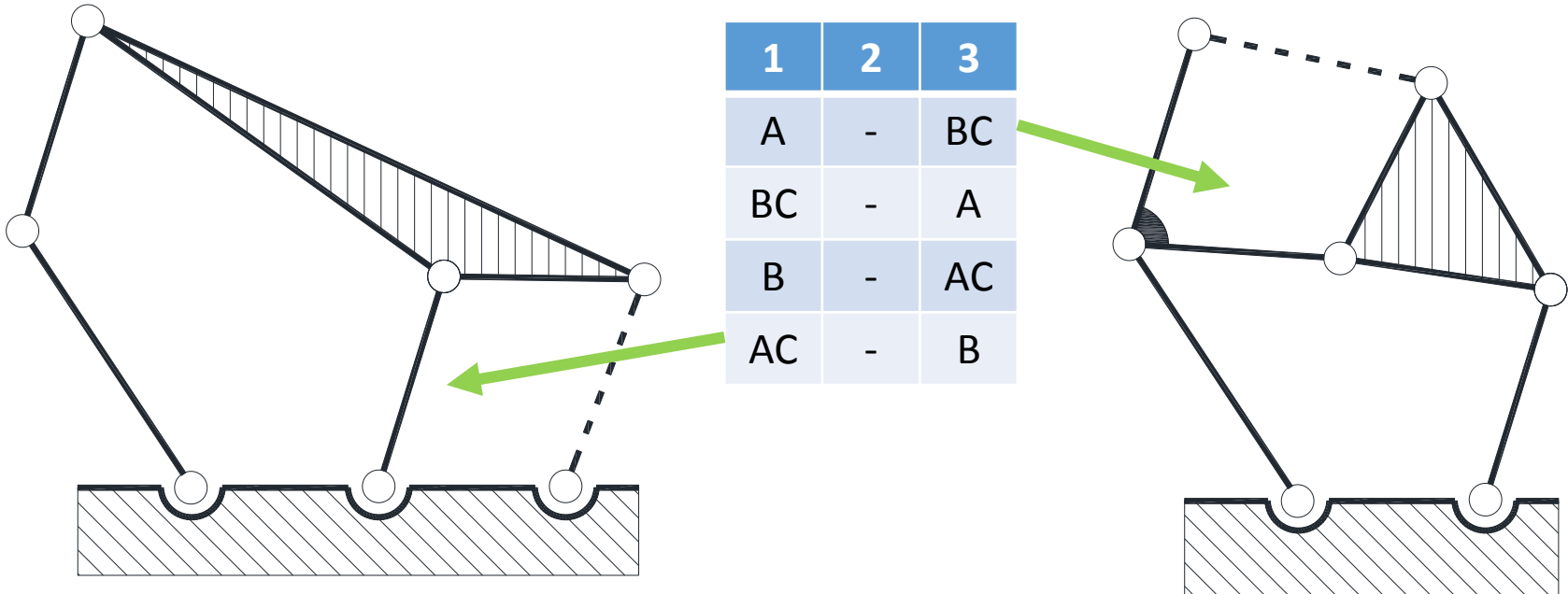
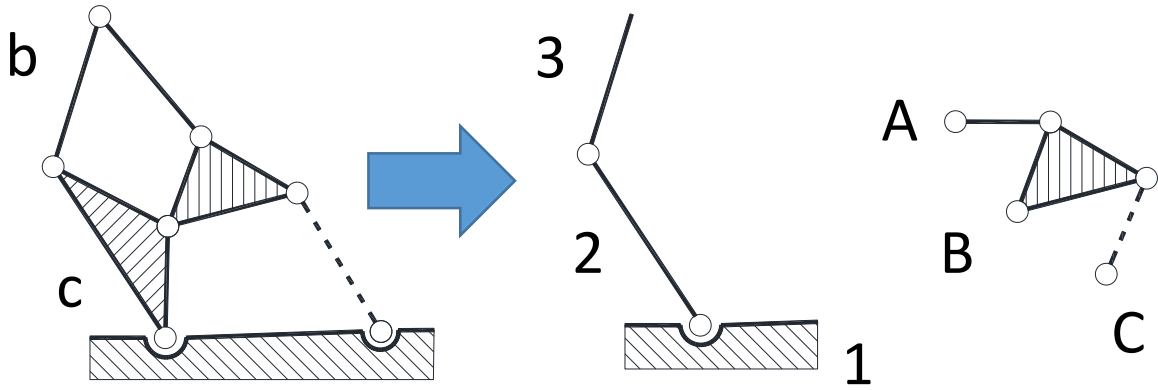
Metoda elementarna



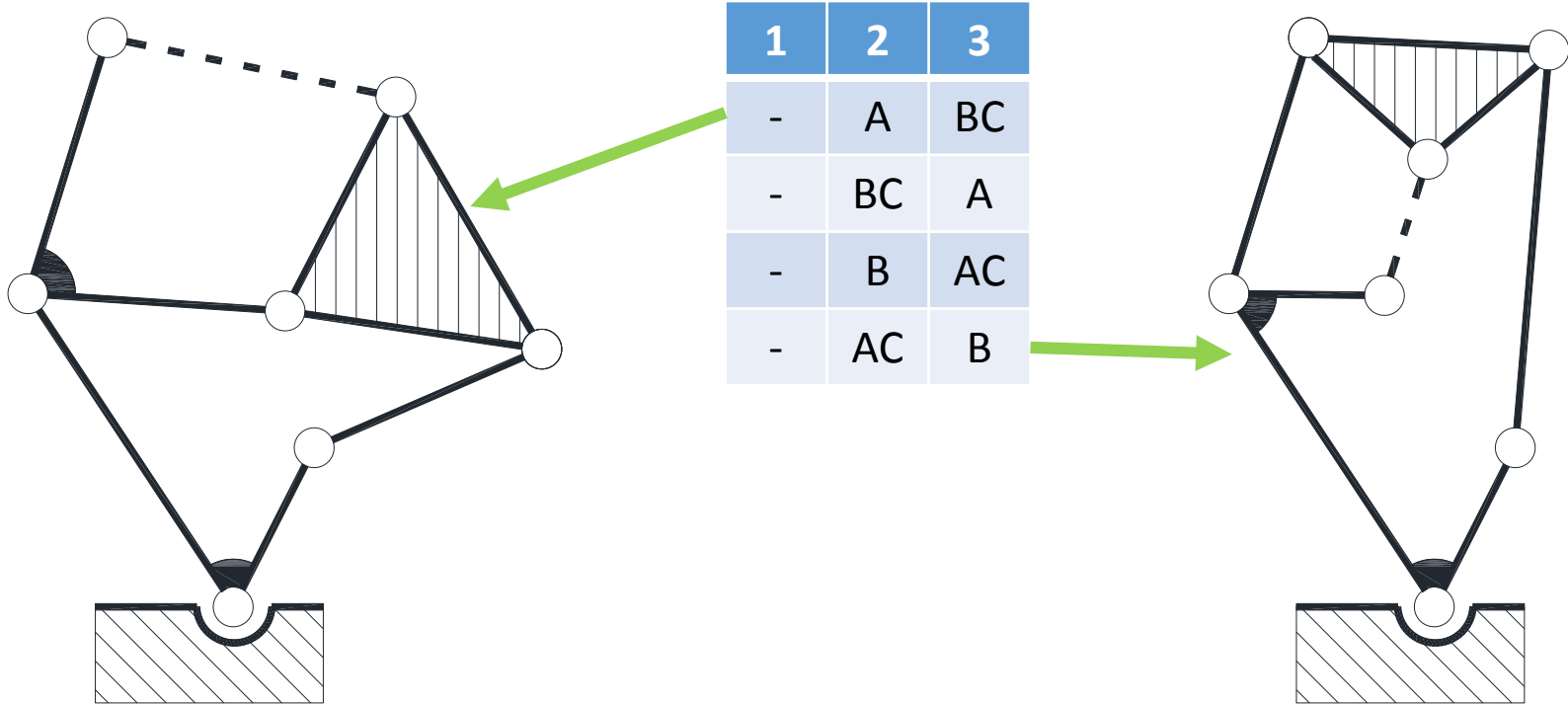
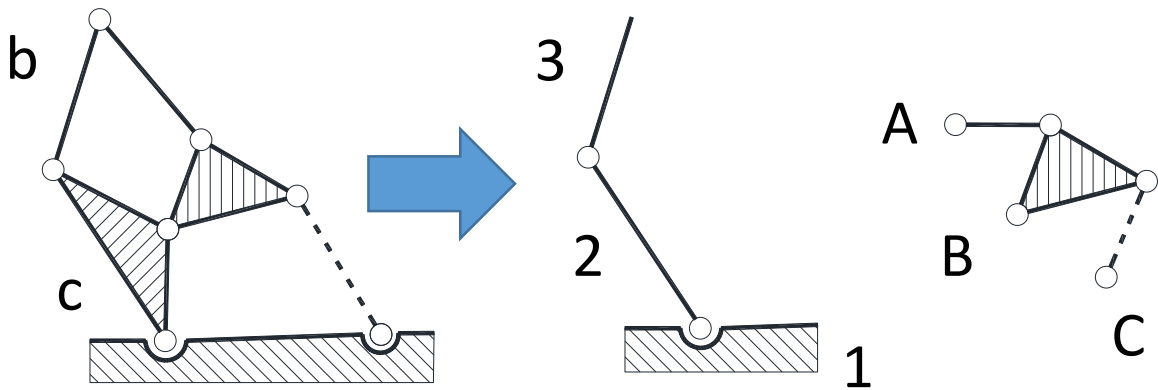
Metoda inwersji



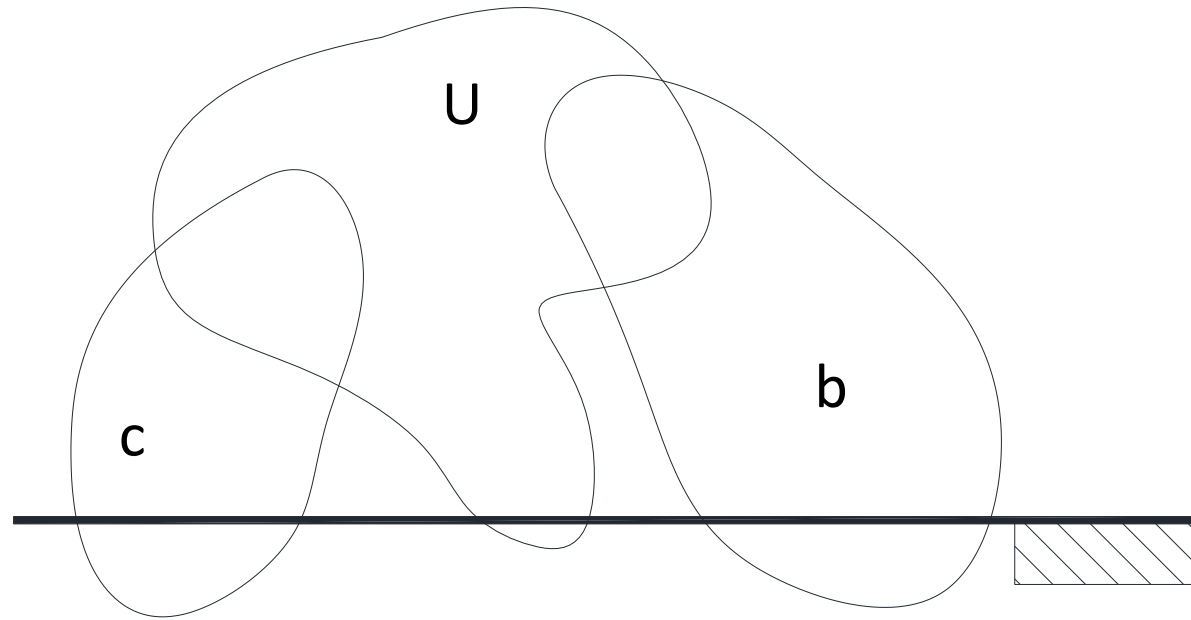
Metoda inwersji



Metoda inwersji

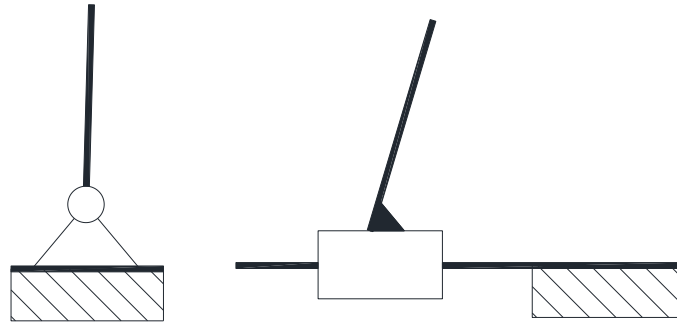


Metoda łańcucha pośredniczącego



$$W = W_u + W_c + W_b$$

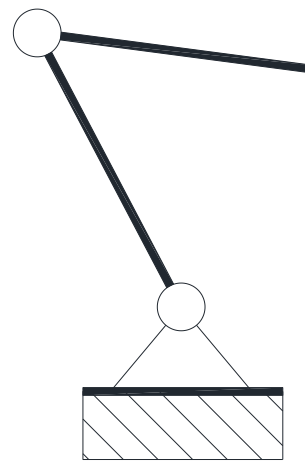
Metoda łańcucha pośredniczącego



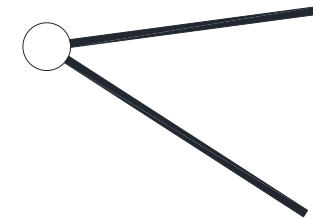
$$W_b = 1$$



$$W_b = 3$$

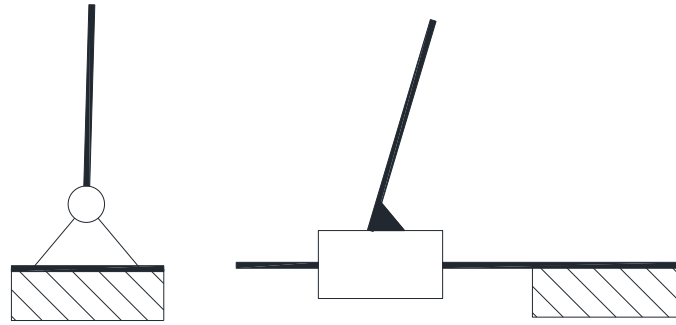


$$W_b = 2$$



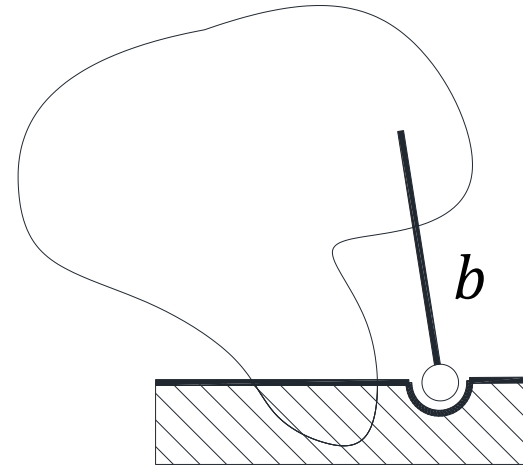
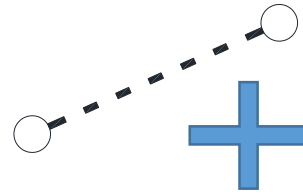
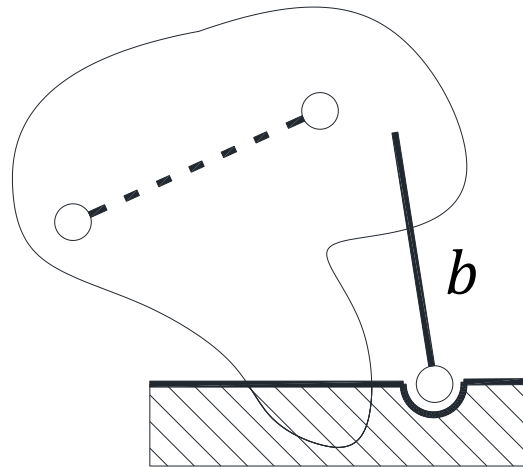
$$W_b = 4$$

Metoda łańcucha pośredniczącego



$$W_c = 1$$

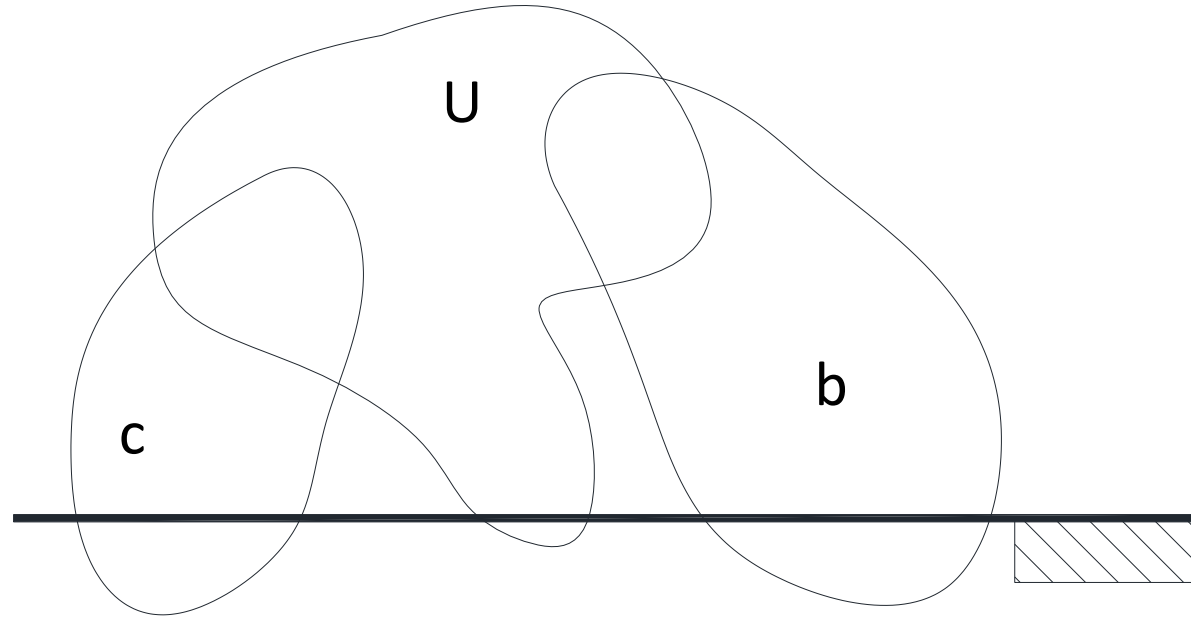
$$W = 0$$



$$W = 1$$

$$W_c = 0$$

Równanie strukturalne łańcucha U



$$W = W_u + W_c + W_b$$

$$W_u = 3k - 2p_1 - p_2$$

$$3k - W_u = 2p_1 + p_2$$

Tabela rozwiązań

$$np. \quad W_U = -1$$

Lp.	k	p_1	p_2	Symbol U
1	0	0	1	001
2	1	2	0	120
3	1	1	2	112
4	2	3	1	231
5	2	2	3	223
6	3	5	0	350
7	3	4	2	342
...

ale gdy $p_2 \leq 1$

Tabela rozwiązań

$$np. \quad W_U = -1$$

Lp.	k	p_1	p_2	Symbol U
1	0	0	1	001
2	1	2	0	120
3	2	3	1	231
4	3	5	0	350
...

ale gdy $p_2 \leq 1$

Węźłowość członów

Lp.	k	p ₁	p ₂	Symbol U
1	0	0	1	001
2	1	2	0	120
3	2	3	1	231
4	3	5	0	350
...



Węźłowość członów

p	k	n	n ₂	n ₃	...
2	1	2	2	0	...
		2	1	1	...
4	2	3	1	2	...
5	3	4	2	2	...

przykładowe ograniczenie: $n_i = 0$, gdy $i \geq 4$

$$2p = \sum_{i=2}^m i n_i$$

gdzie: $p = p_1 + p_2$

$$n = \sum_{i=2}^m n_i$$

n_i : liczba członów n – węźlowych

Sposób łączenia członów między sobą

$$A_p = \begin{bmatrix} a_{11} & \cdots & a_{1n} \\ \vdots & \ddots & \vdots \\ a_{n1} & \cdots & a_{nn} \end{bmatrix}$$

pamiętając że: $a_{ij} = a_{ji}$

gdy $i = j$: $a_{ij} = 0$

gdy $i \neq j$ a także człon i oraz j nie tworzą pary: $a_{ij} = 0$

$$w = \sum_{j=1}^n a_{ij}$$

węzłowość członów wg. odpowiedniego nr wiersza macierzy A_p