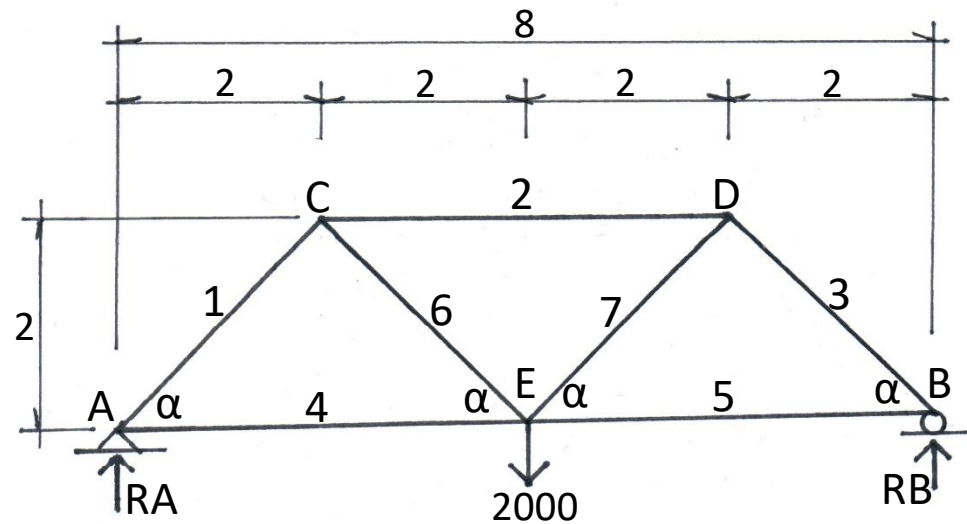


## 8.3 Metode "RITER"

### 8.3.1 Hitung gaya-gaya batang dengan metode riter.



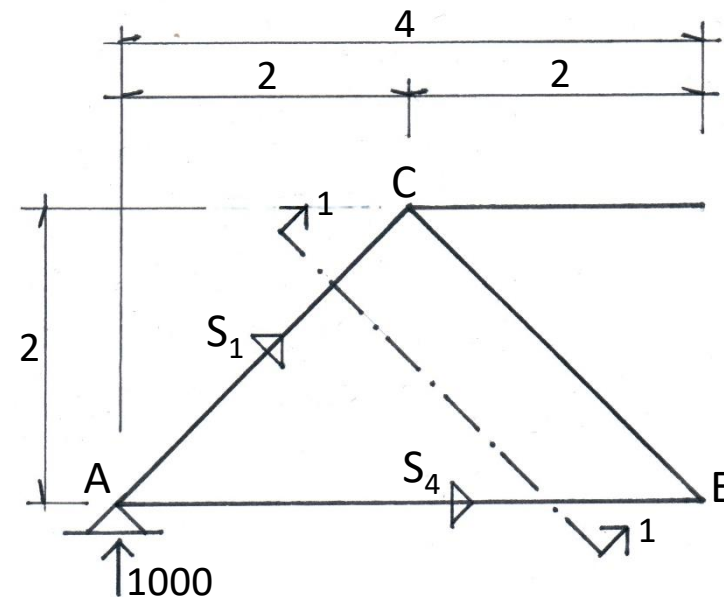
$$\begin{aligned}\sum M_E = 0 &\rightarrow 1000 \cdot 4 + S_1 \cdot 2,8 = 0 \\ 2,8 S_1 &= -4000 \rightarrow S_1 = -1429 \text{ kg (tekan)}\end{aligned}$$

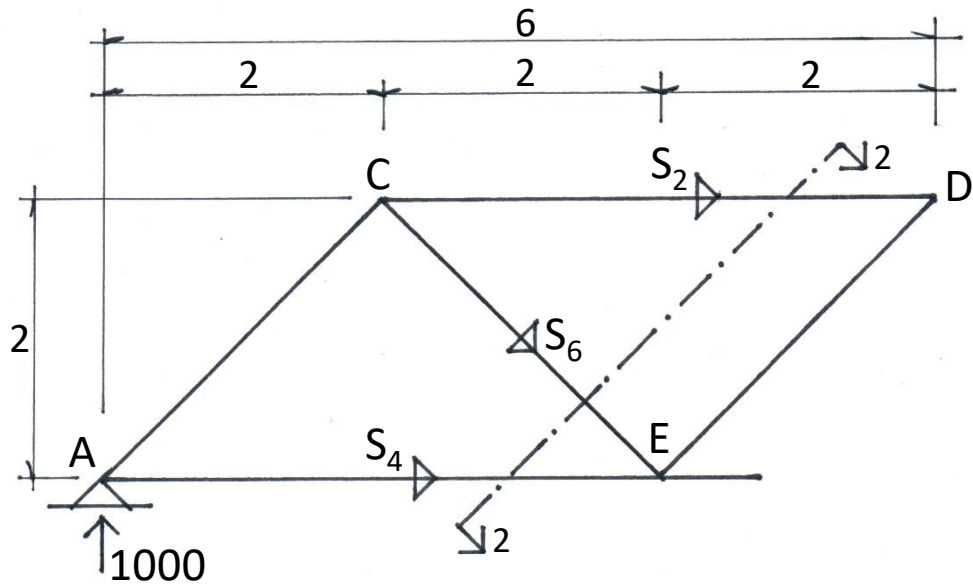
$$\begin{aligned}\sum M_C = 0 &\rightarrow 1000 \cdot 2 - S_4 \cdot 2 = 0 \\ 2 S_4 &= 2000 \rightarrow S_4 = 1000 \text{ kg (tarik)}\end{aligned}$$

$$\alpha = 45^\circ$$

$$R_A = R_B = 0,5 \cdot 2000 = 1000 \text{ kg}$$

Potongan : 1 - 1





Potongan : 2 - 2

$$\Sigma M_E = 0 \rightarrow 1000 \cdot 4 + S_2 \cdot 2 = 0$$

$$2 S_2 = -4000$$

$$S_2 = -2000 \text{ kg (tekan)}$$

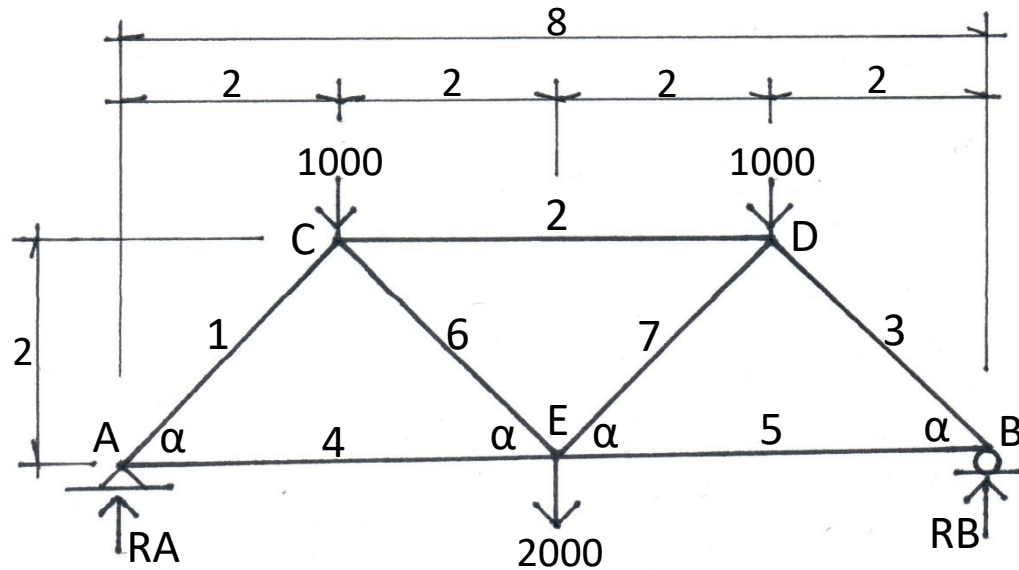
$$\Sigma M_D = 0 \rightarrow 1000 \cdot 6 - S_4 \cdot 2 - S_6 \cdot 2,8 = 0$$

$$6000 - 1000 \cdot 2 - 2,8 S_6 = 0$$

$$2,8 S_6 = 4000$$

$$S_6 = 1429 \text{ kg (tarik)}$$

### 8.3.2 Hitung gaya-gaya batang dengan metode Riter.



$$\Sigma M_E = 0 \rightarrow 2000 \cdot 4 + S_1 \cdot 2,8 = 0 \rightarrow 2,8 S_1 = -8000$$

$$S_1 = -2857 \text{ kg (tekan)}$$

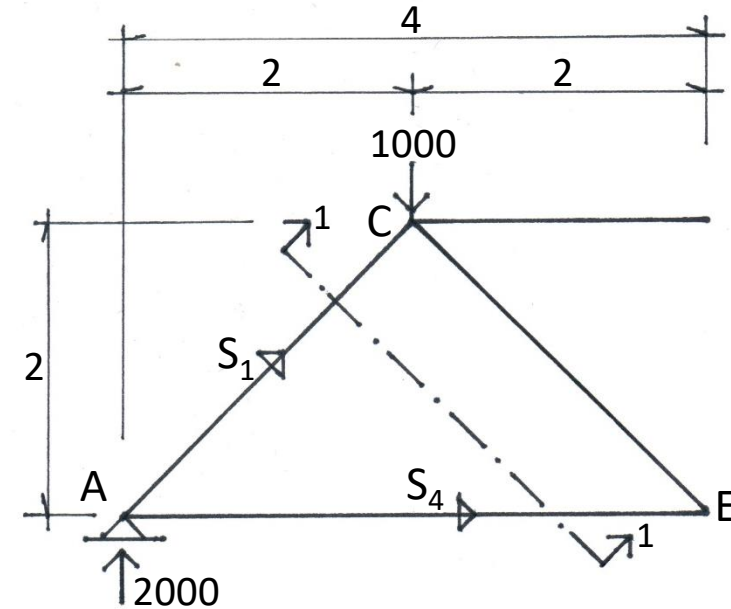
$$\Sigma M_C = 0 \rightarrow 2000 \cdot 2 - S_4 \cdot 2 = 0 \rightarrow 2 S_4 = 4000$$

$$S_4 = 2000 \text{ kg (tarik)}$$

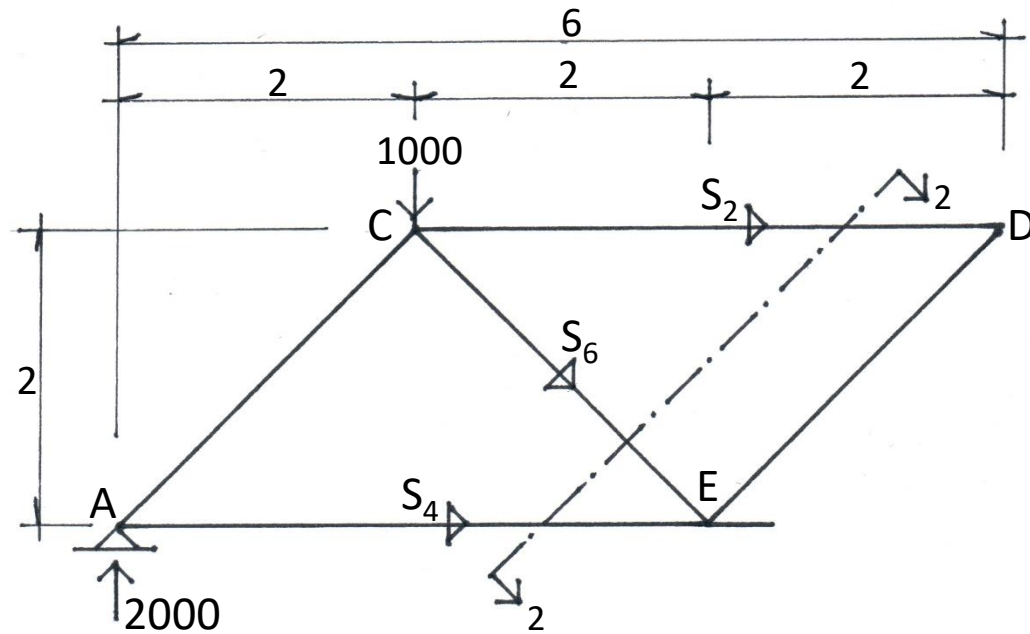
$$\alpha = 45^\circ$$

$$R_A = R_B = 1000 + 0,5 \cdot 2000 = 2000 \text{ kg}$$

Potongan : 1 - 1



## Potongan : 2 – 2



$$\Sigma M_E = 0 \rightarrow 2000 \cdot 4 + S_2 \cdot 2 - 1000 \cdot 2 = 0$$

$$8000 + 2 S_2 - 2000 = 0$$

$$2 S_2 = -6000$$

$$S_2 = -3000 \text{ kg (tekan)}$$

$$\Sigma M_D = 0 \rightarrow 2000 \cdot 6 - 1000 \cdot 4 - S_4 \cdot 2 - S_6 \cdot 2,8 = 0$$

$$12000 - 4000 - 2000 \cdot 2 - 2,8 S_6 = 0$$

$$2,8 S_6 = 4000$$

$$S_6 = 1428 \text{ kg (tarik)}$$

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