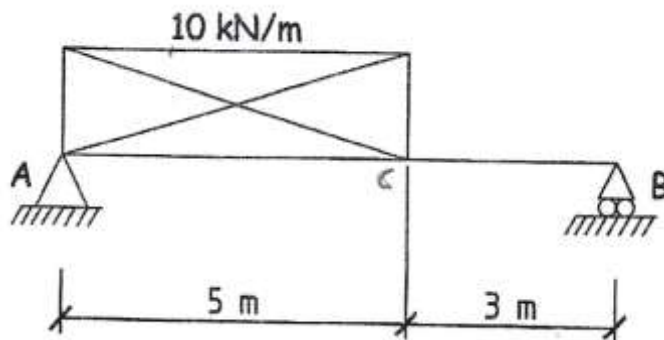


OEFENING 2:



Reactiekrachten

$$R_a + R_b - (10 \text{ kN/m} \cdot 5 \text{ m}) = 0$$

$$R_a + R_b = 50 \text{ kN}$$

$$\text{Moment om A} \rightarrow R_a \cdot 0 \text{ m} + (10 \text{ kN/m} \cdot 5 \text{ m}) \cdot 2,5 \text{ m} - R_b \cdot 8 \text{ m} = 0$$

$$R_b = 15,625 \text{ kN}$$

$$R_a = 34,375 \text{ kN}$$

Dwarskrachten

$$\text{Gebied AC: } D = R_a - (10 \text{ kN/m} \cdot x \text{ m})$$

$$\rightarrow X = 0 \text{ m} \rightarrow D = 34,375 \text{ kN}$$

$$\rightarrow X = 2,5 \text{ m} \rightarrow D = 9,375 \text{ kN}$$

$$\rightarrow X = 5 \text{ m} \rightarrow D = -15,625 \text{ kN}$$

$$\text{Gebied CB: } D = R_a - (10 \text{ kN/m} \cdot 5 \text{ m}) = -15,625 \text{ kN}$$

Momenten

$$\text{Gebied AC: } M_b = (R_a \cdot x) - (10 \text{ kN/m} \cdot x) \cdot (x/2) \quad \text{aangepast}$$

$$\rightarrow X = 0 \text{ m} \rightarrow M_b = 0 \text{ kN}$$

$$\rightarrow X = 2,5 \text{ m} \rightarrow M_b = (34,375 \cdot 2,5) - (10 \cdot 2,5 \cdot 1,25) = 54,6875 \text{ kN}$$

$$\rightarrow X = 5 \text{ m} \rightarrow M_b = (34,375 \cdot 5) - (10 \cdot 5 \cdot 2,5) = 49,875 \text{ kN}$$

$$\text{Gebied CB: } M_b = ???$$

$$\rightarrow X = 5 \text{ m} \rightarrow M_b =$$

$$\rightarrow X = 8 \text{ m} \rightarrow M_b =$$