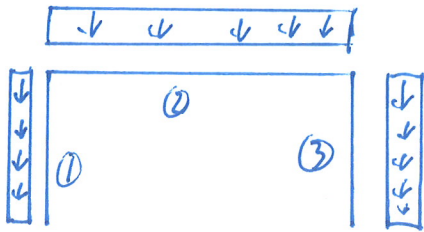


Eigenlast p_e



$$R_{Av} = (a+b) p_e$$

$$R_{Bv} = R_{Av}$$

$$R_{Ah} = \frac{1}{2} \frac{b^2}{a} p_e$$

$$R_{Bh} = -R_{Ah}$$

$$\textcircled{1} \quad N_1(x_1) = p_e x_1 - (a+b) p_e \quad N_1(a) = -p_e b$$

$$V_1(x) = R_{Ah} \quad V_1(a) = R_{Ah}$$

$$M_1(x) = -R_{Ah} x_1 \quad M_1(a) = -R_{Ah} a$$

$$\textcircled{2} \quad N_2(x_2) = -V_1(a)$$

$$V_2(x_2) = N_1(a) + p_e x_2 \quad V_2(2b) = N_1(a) + p_e 2b$$

$$M_2(x_2) = M_1(a) - N_1(a) x_2 - \frac{1}{2} p_e x_2^2$$

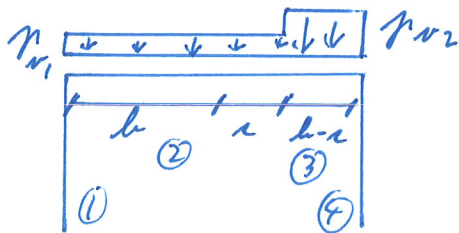
$$M_2(2b) = M_1(a) - N_1(a) 2b - \frac{1}{2} p_e (2b)^2$$

$$\textcircled{3} \quad \mathcal{N}_3(x_3) = -R_{Br} + p_e x_3$$

$$\mathcal{V}_3(x_3) = -R_{Bh}$$

$$\mathcal{M}_3(x_3) = R_{Bh} x_3$$

Lodret vindlast p_{r1} og p_{r2}



$$R_{Br} = -B_{Br} + (h+z)p_{r1} + (h-z)p_{r2}$$

$$R_{Br} = \frac{(h+z)^2 p_{r1} + (h-z)(3h+z)p_{r2}}{4h}$$

$$R_{Bh} = -R_{Br}$$

$$R_{Bh} = \frac{-2R_{Br}h + z^2 p_{r1} + (h^2 - z^2)p_{r2}}{2a}$$

$$\textcircled{1} \quad \mathcal{N}_1(x_1) = -R_{Br}$$

$$\mathcal{N}_1(a) = -R_{Br}$$

$$\mathcal{V}_1(x_1) = R_{Bh}$$

$$\mathcal{V}_1(a) = R_{Bh}$$

$$\mathcal{M}_1(x_1) = -R_{Bh} x_1$$

$$\mathcal{M}_1(a) = -R_{Bh} a$$

$$\textcircled{2} \quad \mathcal{N}_2(x_2) = -\mathcal{V}_1(a)$$

$$\mathcal{N}_2(h+z) = -\mathcal{V}_1(a)$$

$$\mathcal{V}_2(x_2) = \mathcal{N}_1(a) + p_{r1} x_2$$

$$\mathcal{V}_2(h+z) = \mathcal{N}_1(a) + p_{r1}(h+z)$$

$$\mathcal{M}_2(x_2) = \mathcal{M}_1(a) - \mathcal{N}_1(a)x_2 - \frac{1}{2}x_2^2 p_{r1}$$

$$\mathcal{M}_2(h+z) = \mathcal{M}_1(a) - \mathcal{N}_1(a)(h+z) - \frac{1}{2}(h+z)^2 p_{r1}$$

Lodret vindlast p_{v1} og p_{v2} fortsat

③

$$N_3(x_2) = w_2(h+c)$$

$$V_3(x_2) = V_2(h+c) + (x_2 - h - c) p_{v2}$$

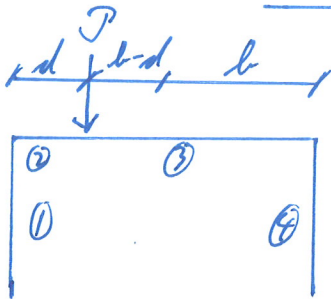
$$M_3(x_2) = M_2(h+c) - V_2(h+c)(x_2 - h - c) - \frac{1}{2}(x_2 - h - c)^2 p_{v2}$$

④

$$N_4(x_3) = -R_{Bv}$$

$$V_4(x_3) = -R_{Bh}$$

$$M_4(x_3) = R_{Bh} x_3$$

Lodret enkeltkraft, P 

$$R_{sv} = P - R_{Bv}$$

$$R_{Bv} = \frac{d}{2h} P$$

$$R_{sh} = -R_{Bh}$$

$$R_{Bh} = -\frac{l}{a} R_{Bv}$$

$$① \quad N_1(x_1) = -R_{sv} \quad N_1(a) = -R_{sv}$$

$$V_1(x_1) = R_{sh} \quad V_1(a) = R_{sh}$$

$$M_1(x_1) = -R_{sh} x_1 \quad M_1(a) = -R_{sh} a$$

Ladret enkelthraft, P - fortset

$$(2) \quad \mathcal{N}_2(x_2) = -\mathcal{V}_1(a) \qquad \mathcal{N}_2(d) = -\mathcal{V}_1(a)$$

$$\mathcal{V}_2(x_2) = \mathcal{V}_1(a) \qquad \mathcal{V}_2(d) = \mathcal{V}_1(a)$$

$$\mathcal{M}_2(x_2) = \mathcal{M}_1(a) - \mathcal{V}_1(a) x_2$$

$$\mathcal{M}_2(d) = \mathcal{M}_1(a) - \mathcal{V}_1(a) d$$

$$(3) \quad \mathcal{N}_3(x_2) = \mathcal{N}_2(a)$$

$$\mathcal{V}_3(x_2) = \mathcal{V}_2(a) + P$$

$$\mathcal{M}_3(x_2) = \mathcal{M}_2(d) - (\mathcal{V}_2(d) + P)(x - d)$$

$$(4) \quad \mathcal{N}_4(x_3) = -R_{Bv}$$

$$\mathcal{V}_4(x_3) = -R_{Bh}$$

$$\mathcal{M}_4(x_3) = R_{Bh} x_3$$

Lastkombinationen

$$\mathcal{N}_{kombi} = k_e \mathcal{N}_{egentlast} + k_v \mathcal{N}_{vind} + k_p \mathcal{N}_{enkelthraft}$$

$$\mathcal{V}_{kombi} = k_e \mathcal{V}_{egentlast} + k_v \mathcal{V}_{vind} + k_p \mathcal{V}_{enkelthraft}$$

$$\mathcal{M}_{kombi} = k_e \mathcal{M}_{egentlast} + k_v \mathcal{M}_{vind} + k_p \mathcal{M}_{enkelthraft}$$