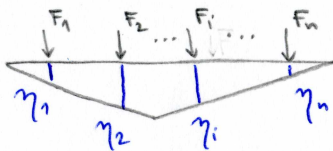


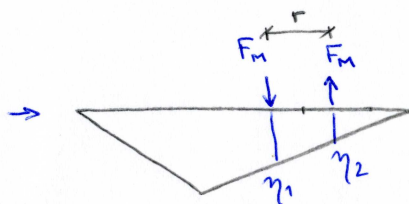
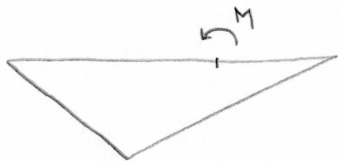
Příčinkové čáry - vyhodnocení

S_x



$$\rightarrow S_x = \sum_{i=1}^n F_i \cdot \eta_i$$

S_x

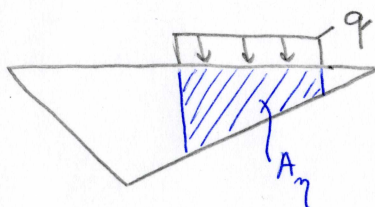


$$S_x = F_m \cdot \eta_1 - F_m \cdot \eta_2 \\ = F_m \cdot (\eta_1 - \eta_2)$$

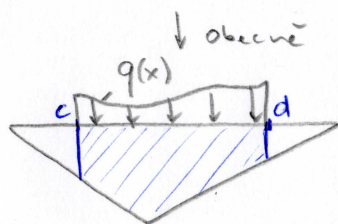
$$F_m \cdot r = M$$

! obě síly F_m musí být na téže
přímce části příčinkové čáry
jako původní moment M !

S_x



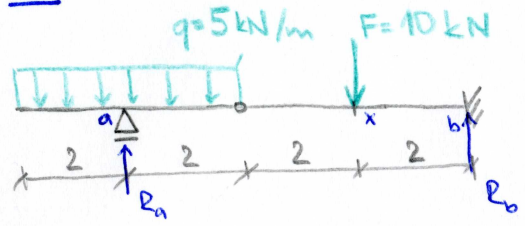
$$\rightarrow S_x = q \cdot A_\eta$$



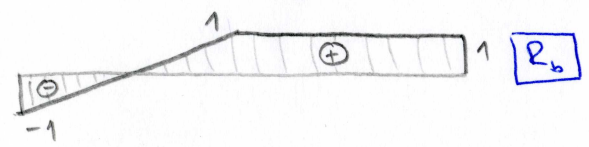
$$\rightarrow S_x = \int_c^d q(x) S(x) dx$$

Př. Určete, který zatěžovací stav vyvolá větší reakci R_a , R_b a větší ohybový moment M_x .

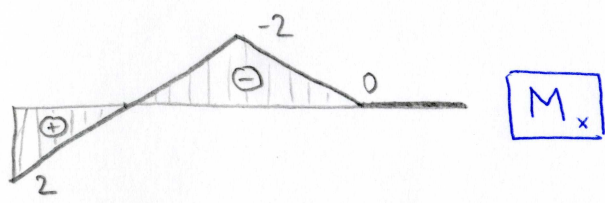
ZS1:



R_a

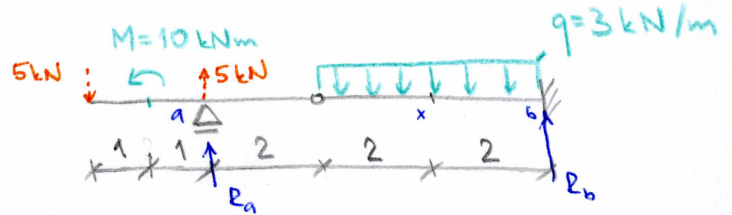


R_b



M_x

ZS2:



$5 \cdot 2 = 10 \checkmark$

$R_{a1} = 5 \cdot \frac{2 \cdot 4}{2} + 10 \cdot 0 = \underline{\underline{20 \text{ kN}}}$

>

$R_{a2} = 5 \cdot 2 - 5 \cdot 1 + 3 \cdot 0 = \underline{\underline{5 \text{ kN}}}$

$R_{b1} = 5 \cdot \frac{1 \cdot 2}{2} + 5 \cdot \frac{1 \cdot 2}{2} + 10 \cdot 1 = \underline{\underline{10 \text{ kN}}}$

>

$R_{b2} = 5 \cdot (-1) - 5 \cdot 0 + 3 \cdot 1 \cdot 4 = \underline{\underline{7 \text{ kN}}}$

$M_{x1} = 5 \cdot \frac{2 \cdot 2}{2} + 5 \cdot \frac{-2 \cdot 2}{2} + 10 \cdot 0 = \underline{\underline{0 \text{ kNm}}}$

<

$M_{x2} = 5 \cdot 2 - 5 \cdot 0 + 3 \cdot \frac{-2 \cdot 2}{2} = \underline{\underline{4 \text{ kNm}}}$