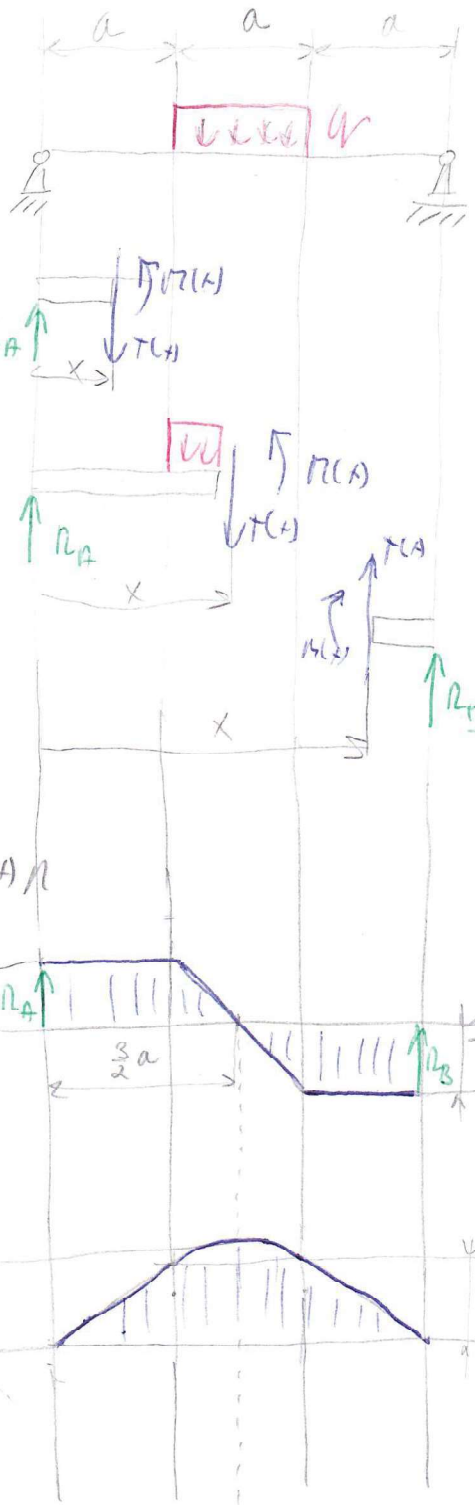
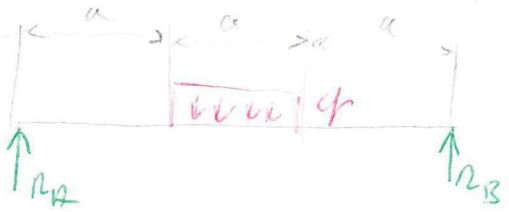




$$R_A + R_B = qa$$

$$R_B \cdot 3a - qa\frac{3}{2}a = 0$$

$$R_B = \frac{qa}{2} \; ; \; R_A = \frac{qa}{2}$$

$\langle 0, a \rangle$

$$T(x) = R_A = \text{const} \; ; \; M(x) = R_A x = \frac{qa}{2}x$$

$$M(0) = 0 \; ; \; M(a) = \frac{qa^2}{2}$$

$\langle a; 2a \rangle$ $T(x) = R_A - q(x-a) = \frac{qa}{2} - qx + qa = \frac{3qa}{2} - qx$

$$M(x) = R_A x - q\frac{(x-a)^2}{2} = \frac{qa}{2}x - \frac{q}{2}(x^2 - 2xa + a^2) = \frac{3}{2}qax - \frac{qx^2}{2} - \frac{qa^2}{2} = \frac{q}{2}(3ax - x^2 - a^2)$$

$$T(a) = \frac{qa}{2} \; ; \; T(2a) = -\frac{1}{2}qa$$

$$M(a) = \frac{qa^2}{2} \; ; \; M(2a) = \frac{qa^2}{2}$$

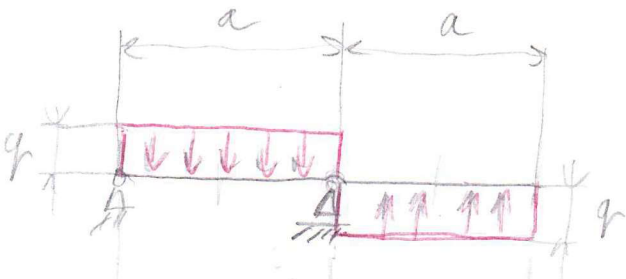
$$T(x) = 0 \iff \frac{3qa}{2} = qx \Rightarrow x = \frac{3a}{2}$$

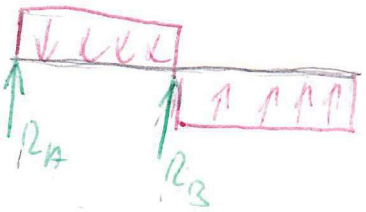
$$M\left(\frac{3}{2}a\right) = \frac{q}{2}\left(3a\frac{3}{2}a - \frac{9}{4}a^2 - a^2\right) = \frac{5}{8}qa^2$$

$\langle 2a, 3a \rangle$ $T(x) = -R_B = -\frac{qa}{2}$

$$M(x) = R_B(3a - x) = \frac{qa}{2}(3a - x)$$

$$M(2a) = \frac{qa^2}{2} \; ; \; M(3a) = 0$$





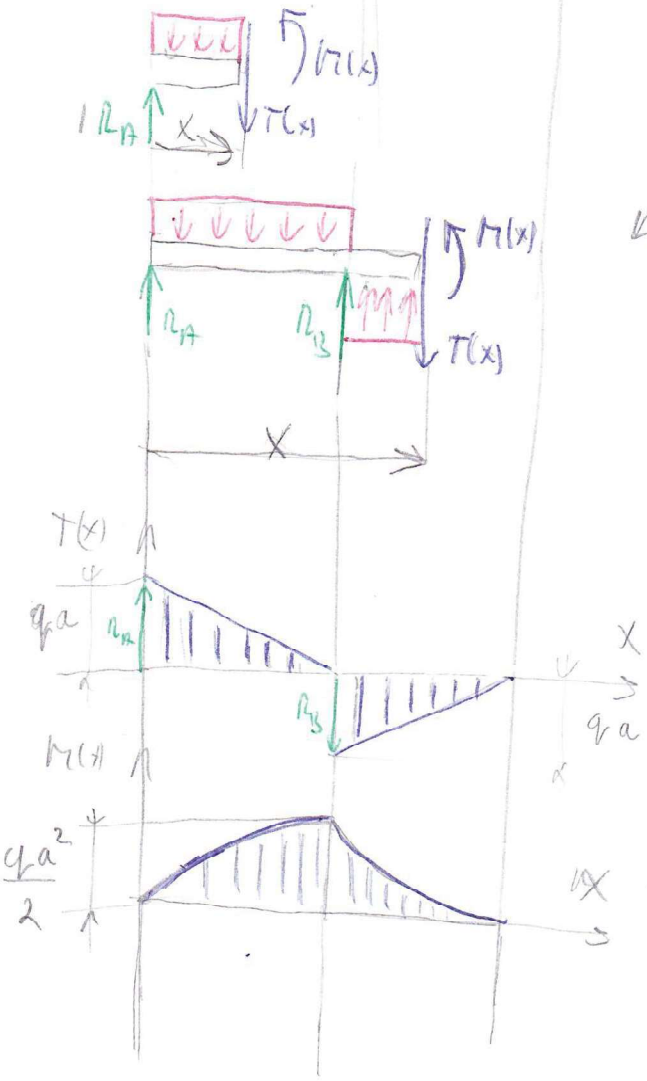
$$\uparrow \quad R_A + R_B - qa + qa = 0$$

$$R_A + R_B = 0$$

$$\circlearrowleft_A \quad -R_B a - \frac{qa^2}{2} + qa\,\frac{3}{2}a = 0$$

$$R_B = \frac{1}{2}qa - \frac{3}{2}qa = -qa$$

$$R_A = qa$$



$\langle 0, a \rangle$ $\quad T(x) = R_A - qx = q(a-x)$

$M(x) = R_A x - \frac{qx^2}{2} = qax - \frac{qx^2}{2}$

$T(0) = qa \qquad T(a) = 0$

$M(0) = 0 \qquad M(a) = \frac{qa^2}{2}$

$\langle a, 2a \rangle$ $\quad T(x) = R_A + R_B - qa + q(x-a) =$

$= q(x-2a)$

$$M(x) = R_A x + R_B(x-a) - qa\left(x - \frac{a}{2}\right) + q\frac{(x-a)^2}{2} =$$

$$= qax - qax + qa^2 - qax + q\frac{a^2}{2} + q\frac{(x-a)^2}{2} =$$

$$= -qax + \frac{3}{2}qa^2 + \frac{q}{2}(x^2 - 2xa + a^2) =$$

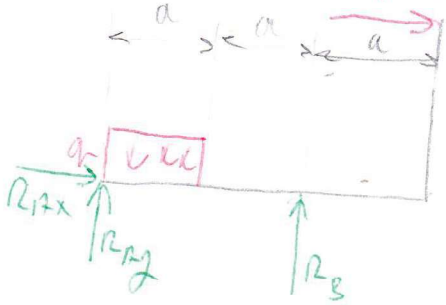
$$= -2qax + 2qa^2 + \frac{qx^2}{2}$$

$T(a) = -qa \qquad T(2a) = 0$

$M(a) = \frac{qa^2}{2} \qquad M(2a) = 0$

D: $a, q, F = q \cdot a$

$F = q \cdot a$ – ZADANO



$x: \quad R_{Ax} = -F = q \cdot a$

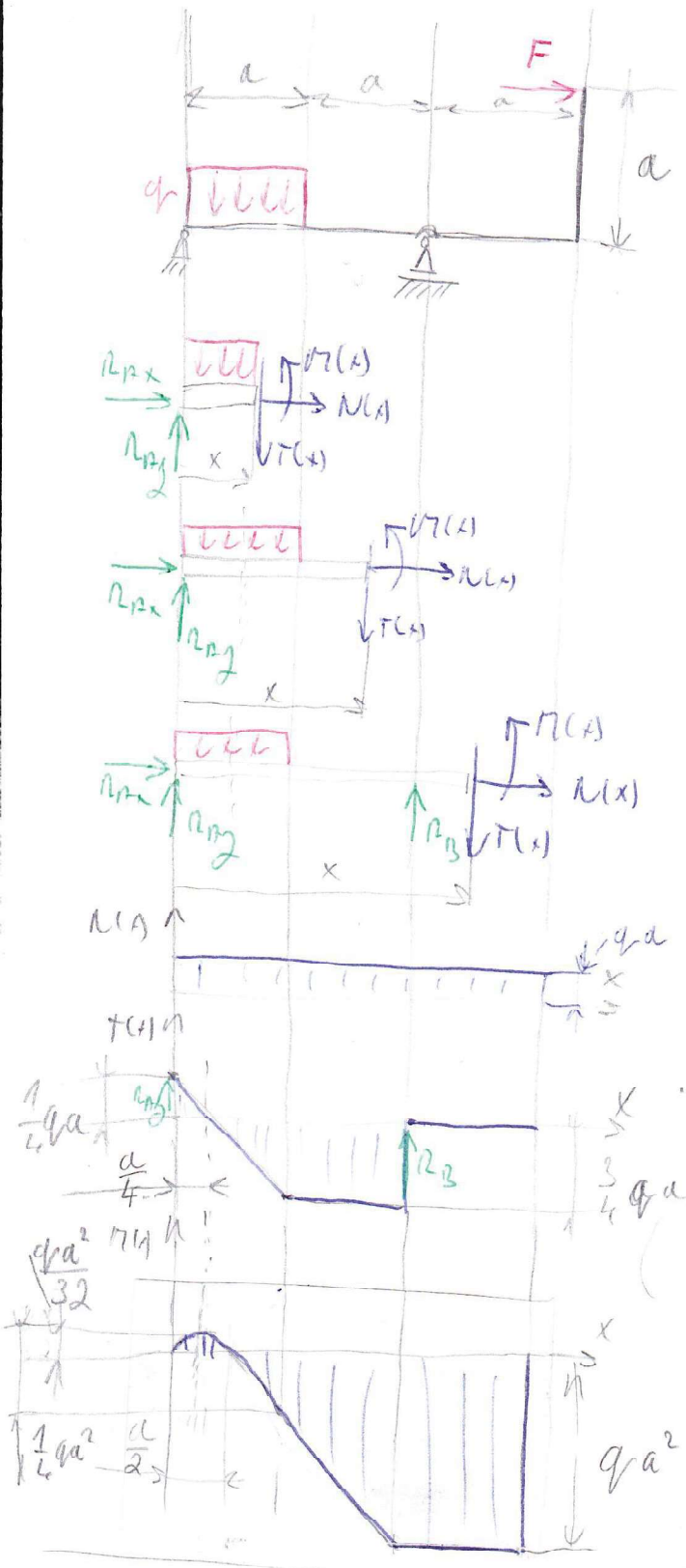
$\downarrow: \quad R_{Ay} + R_B = qa$

$\curvearrowleft A: \quad R_B \cdot 2a - \frac{qa^2}{2} - Fa = 0$

$R_B = \frac{qa}{4} + \frac{F}{2} = \frac{3}{4} qa$

$R_{Ay} = qa - \frac{qa}{4} - \frac{F}{2} =$

$= \frac{3}{4} qa - \frac{qa}{2} = \frac{qa}{4}$



$\langle 0, a \rangle \quad N(x) = -R_{Ax} = F = qa$

$T(x) = R_{Ay} - qx = \frac{qa}{4} - qx$

$M(x) = R_{Ay} \cdot x - \frac{qx^2}{2} = \frac{qa}{4} x - \frac{qx^2}{2}$

$T(0) = \frac{qa}{4}$; $T(a) = -\frac{3}{4} a$

$M(0) = 0$; $M(a) = -\frac{1}{4} qa^2$

$\langle a, 2a \rangle \quad N(x) = -R_{Ax} = qa$

$T(x) = R_{Ay} - qa = -\frac{3}{4} qa$

$M(x) = R_{Ay} \cdot x - qa(x - \frac{a}{2}) = \frac{qa}{4} x - qax + \frac{qa^2}{2} =$

$= -\frac{3}{4} qax + \frac{qa^2}{2}$

$M(a) = -\frac{1}{4} qa^2$; $M(2a) = -qa^2$

$\langle 2a; 3a \rangle \quad N(x) = qa$

$T(x) = R_{Ay} + R_B - qa = 0$

$M(x) = R_{Ay} x + R_B (x - 2a) - qa(x - \frac{a}{2}) =$

$= \frac{qa}{4} x + \frac{3}{4} qax - \frac{3}{2} qa^2 - qax + \frac{qa^2}{2} =$

$= -qa^2 = \text{konst.}$

$\langle 0; a \rangle$

$T(x) = 0 \iff \frac{qa}{4} = qx \Rightarrow$

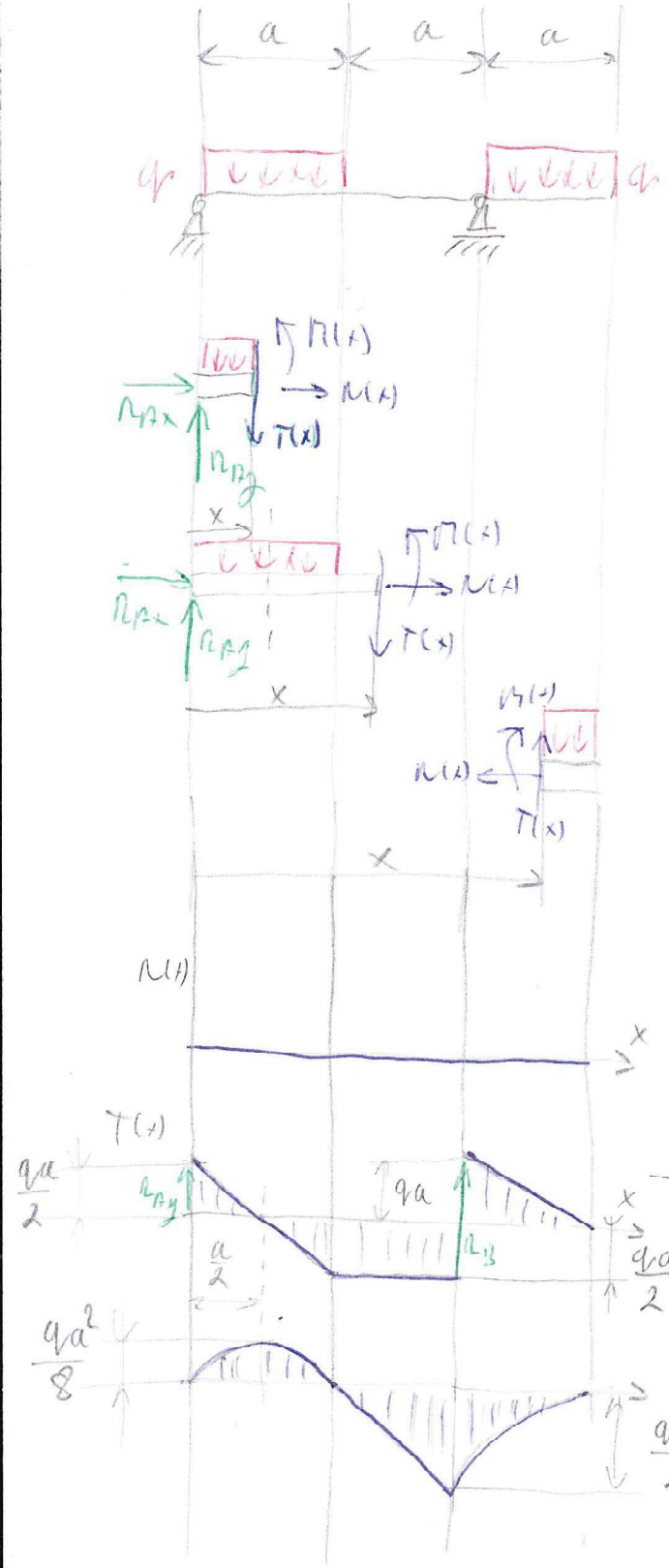
$\Rightarrow x = \frac{a}{4}$

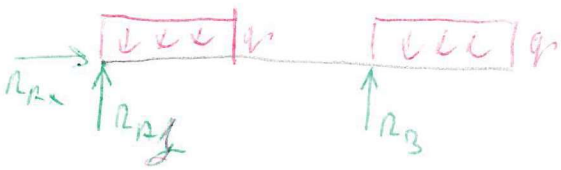
$M(\frac{a}{4}) = \frac{qa}{4} \frac{a}{4} - \frac{q}{2} \frac{a^2}{16} =$

$= \frac{qa^2}{32}$

$h(x) = 0 \iff \frac{qa}{4} x = \frac{qx^2}{2} \Rightarrow$

$\Rightarrow x_1 = 0, \quad x_2 = \frac{a}{2}$





$\rightarrow x: \quad n_{Ax} = 0$

$\uparrow z: \quad n_{Az} + n_B - 2qa = 0$

$\curvearrowleft A: \quad n_B \cdot 2a - \frac{qa^2}{2} - qa \cdot \frac{5}{2}a = 0$

$n_B = \frac{6}{4} qa = \frac{3}{2} qa$

$n_{Az} = 2qa - \frac{3}{2}qa = \frac{1}{2}qa$

$\langle 0, a \rangle \quad N(x) = -n_{Ax} = 0$

$T(x) = n_{Az} - qx = \frac{1}{2}qa - qx$

$M(x) = n_{Az}\, x - \frac{qx^2}{2} = \frac{qa}{2}x - \frac{qx^2}{2}$

$T(0) = \frac{qa}{2}$; $T(a) = -\frac{qa}{2}$

$M(0) = 0$; $M(a) = 0$

$\langle a; 2a \rangle \quad N(x) = -n_{Ax} = 0$

$T(x) = n_{Az} - qa = \frac{1}{2}qa - qa = -\frac{1}{2}qa$

$M(x) = n_{Ax} - qa\left(x - \frac{a}{2}\right) = \frac{qa}{2}x - qax + \frac{qa^2}{2} =$

$= -\frac{qa}{2}x - \frac{qa^2}{2} = \frac{qa}{2}(a - x)$

$M(a) = 0$; $M(2a) = -\frac{qa^2}{2}$

$\langle 0, a \rangle$

$T(x) = 0 \Leftrightarrow \frac{1}{2}qa = qx$

$\Rightarrow x = \frac{a}{2}$

$M\left(\frac{a}{2}\right) = \frac{qa}{2}\frac{a}{2} - \frac{q}{2}\cdot\frac{a^2}{4} = \frac{qa^2}{8}$

$\langle 2a, 3a \rangle \quad N(x) = 0$

$T(x) = q(3a - x)$

$M(x) = -q\frac{(3a-x)^2}{2}$

$T(2a) = qa$; $T(3a) = 0$

$M(2a) = -\frac{qa^2}{2}$; $M(3a) = 0$