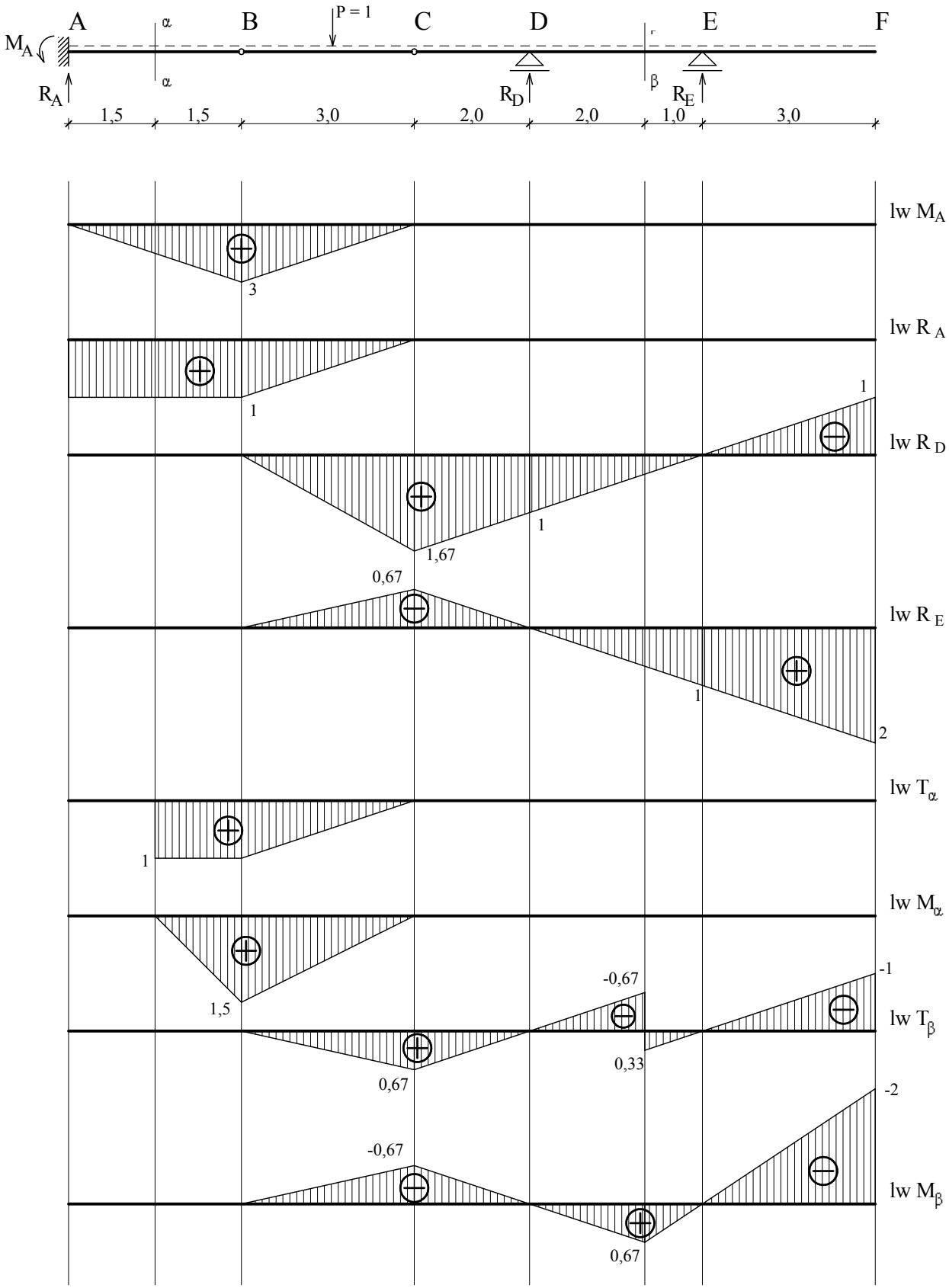
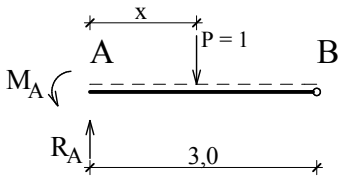

A
α
B
P = 1
C
D
E
F
M_A
R_A
R_D
R_E
β
1,5
1,5
3,0
2,0
2,0
1,0
3,0
lw M_A
3
lw R_A
1
lw R_D
1
1,67
1
lw R_E
0,67
1
2
lw T_α
1
lw M_α
1,5
lw T_β
-0,67
-1
0,33
0,67
lw M_β
-2
-0,67
0,67

lw M_A lw R_A



$P \in \langle A;B \rangle$

$x \in \langle 0;3 \rangle$

$\sum M_A = 0$

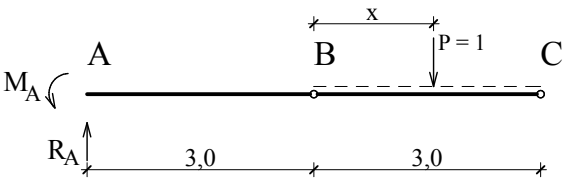
$M_A = x$

$\sum Y = 0$

$R_A = 1$

$x = 0 \quad => \quad M_A = 0$

$x = 3 \quad => \quad M_A = 3$



$P \in \langle B;C \rangle$

$x \in \langle 0;3 \rangle$

$\sum M_C = 0$

$3R_B - P(3-x) = 0$

$R_B = 1 - \frac{x}{3}$

$\sum M_A = 0$

$M_A = 3R_B$

$M_A = 3 - x$

$\sum Y = 0$

$R_A = R_B$

$R_A = 1 - \frac{x}{3}$

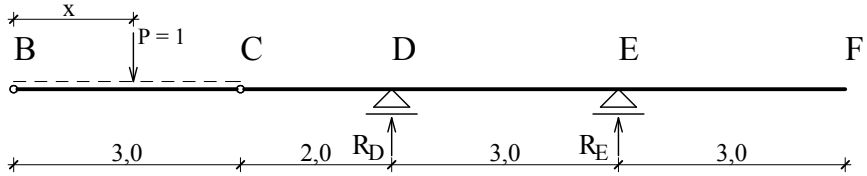
$x = 0 \quad => \quad M_A = 3$

$x = 3 \quad => \quad M_A = 0$

$x = 0 \quad => \quad R_A = 1$

$x = 3 \quad => \quad R_A = 0$

lw R_D lw R_E



$P \in \langle B;C \rangle$

$x \in \langle 0;3 \rangle$

$\sum M_B = 0$

$Px - 3R_C = 0$

$R_C = \frac{x}{3}$

$\sum M_E = 0$

$-5R_C + 3R_D = 0$

$R_D = \frac{5}{9}x$

$\sum M_D = 0$

$-3R_E - 2R_C = 0$

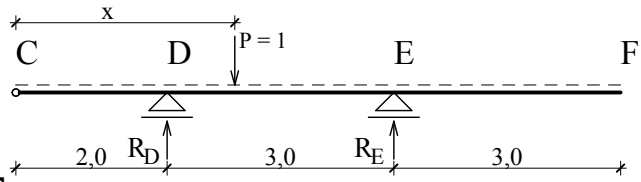
$R_E = -\frac{2}{9}x$

$x = 0 \quad => \quad R_D = 0$

$x = 3 \quad => \quad R_D = 1,67$

$x = 0 \quad => \quad R_E = 0$

$x = 3 \quad => \quad R_E = -0,67$



$P \in \langle C;F \rangle$

$x \in \langle 0;8 \rangle$

$\sum M_E = 0$

$3R_D - P(5-x) = 0$

$R_D = \frac{5}{3} - \frac{x}{3}$

$\sum M_D = 0$

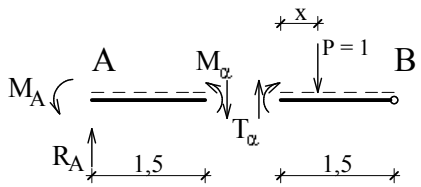
$-3R_E + P(x-2) = 0$

$R_E = \frac{x}{3} - \frac{2}{3}$

x = 0 => R_D = 1,67
x = 8 => R_D = -1

x = 0 => R_E = -0,67
x = 8 => R_E = 2

lw T_α lw M_α



$P \in \langle a;B \rangle$

$x \in \langle 0;1,5 \rangle$

$\sum M_a = 0$

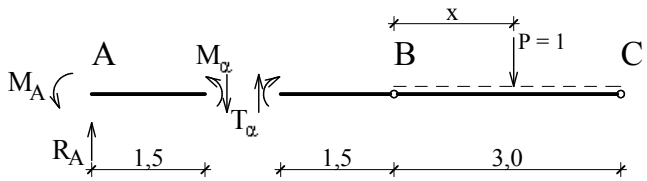
$M_a = -Px$

$\sum Y = 0$

$T_a = P$

x = 0 => Mα = 0
x = 1,5 => Mα = -1,5

x = 0 => Tα = 1
x = 1,5 => Tα = 1



$P \in \langle B;C \rangle$

$x \in \langle 0;3 \rangle$

$R_B = 1 - \frac{x}{3}$

$\sum M_a = 0$

$M_a = -1,5R_B$

$M_a = \frac{x}{2} - \frac{3}{2}$

$\sum Y = 0$

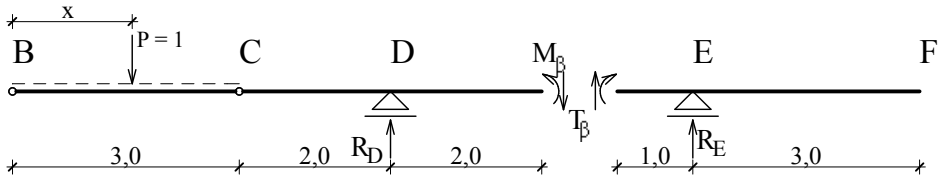
$T_a = R_B$

$T_a = 1 - \frac{x}{3}$

x = 0 => Mα = -1,5
x = 3 => Mα = 0

x = 0 => Tα = 1
x = 3 => Tα = 0

lw T_β lw M_β



$P \in \langle B;C \rangle$

$x \in \langle 0;3 \rangle$

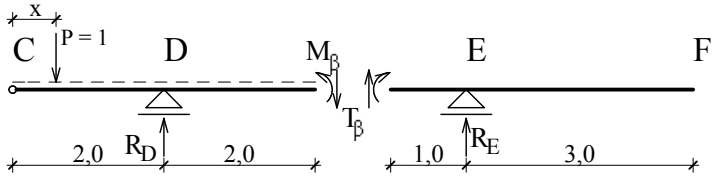
$$\sum M_B = 0$$
$$Px - 3R_C = 0$$
$$R_C = \frac{x}{3}$$

$$\sum M_b = 0$$
$$M_b = -4R_C + 2R_D$$
$$M_b = -\frac{2}{9}x$$

x = 0 => $M_\beta = 0$
x = 3 => $M_\beta = -0,67$

$$\sum Y = 0$$
$$T_b = R_D - R_C$$
$$T_b = \frac{2}{9}x$$

x = 0 => $T_\beta = 0$
x = 3 => $T_\beta = 0,67$



$P \in \langle C;b \rangle$

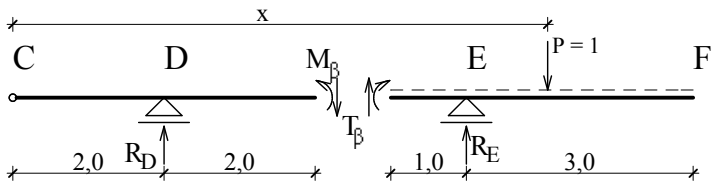
$x \in \langle 0;4 \rangle$

$$\sum M_b = 0$$
$$M_b = 2R_D - P(4-x)$$
$$M_b = \frac{x}{3} - \frac{2}{3}$$

x = 0 => $M_\beta = -0,67$
x = 4 => $M_\beta = 0,67$

$$\sum Y = 0$$
$$T_b = R_D - P$$
$$T_b = \frac{2}{3} - \frac{x}{3}$$

x = 0 => $T_\beta = 0,67$
x = 4 => $T_\beta = -0,67$



$P \in \langle b;F \rangle$

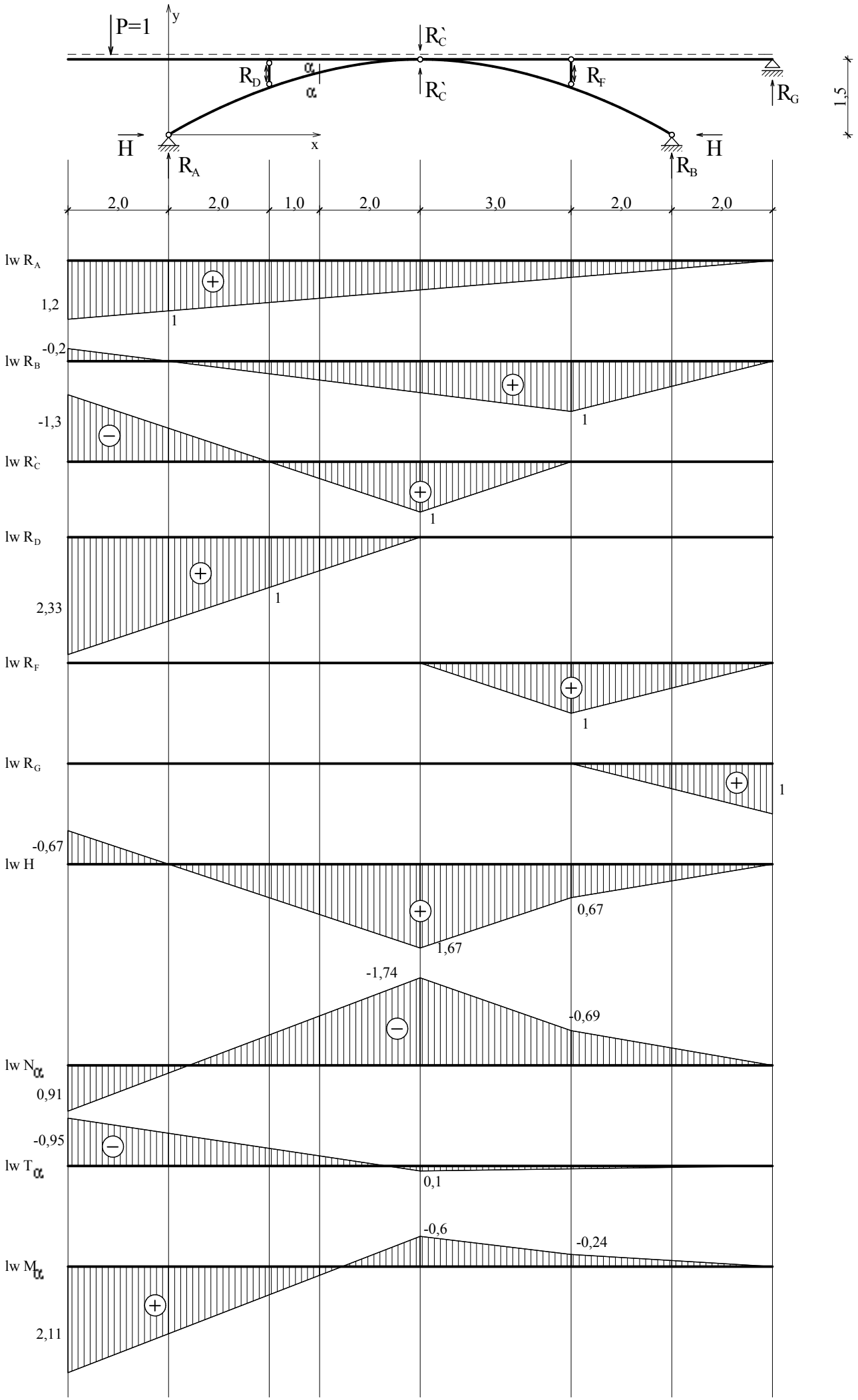
$x \in \langle 4;8 \rangle$

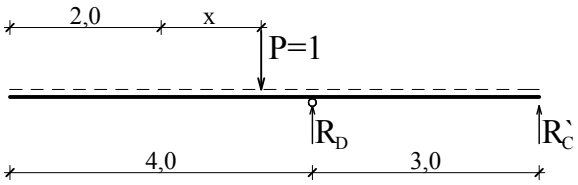
$$\sum M_b = 0$$
$$M_b + P(x-4) - R_E = 0$$
$$M_b = \frac{10}{3} - \frac{2}{3}x$$

x = 4 => $M_\beta = 0,67$
x = 8 => $M_\beta = -2$

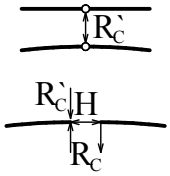
$$\sum Y = 0$$
$$T_b + R_E - P = 0$$
$$T_b = \frac{5}{3} - \frac{x}{3}$$

x = 4 => $T_\beta = 0,33$
x = 8 => $T_\beta = -1$


P=1
y
x
R_C`
R_C`
R_D
R_F
R_G
α
α
1,5
H
H
R_A
R_B
2,0
2,0
1,0
2,0
3,0
2,0
2,0
lw R_A
1,2
1
-0,2
lw R_B
1
-1,3
lw R_C`
1
lw R_D
2,33
1
lw R_F
1
lw R_G
1
-0,67
lw H
0,67
1,67
-1,74
-0,69
lw $N_α$
0,91
-0,95
lw $T_α$
0,1
-0,6
-0,24
lw $M_α$
2,11

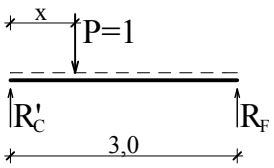


$x \in \langle -2;5 \rangle$



$$\sum M_D = 0$$
$$-P(2-x) - 3R'_C = 0$$
$$R'_C = \frac{x}{3} - \frac{2}{3}$$

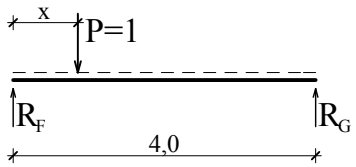
$$\sum M_C = 0$$
$$-P(5-x) + 3R_D = 0$$
$$R_D = \frac{5}{3} - \frac{x}{3}$$



$P \in \langle F;G \rangle$
$x \in \langle 0;4 \rangle$

$$\sum M_F = 0$$
$$Px - 4R_G = 0$$
$$R_G = \frac{x}{4}$$

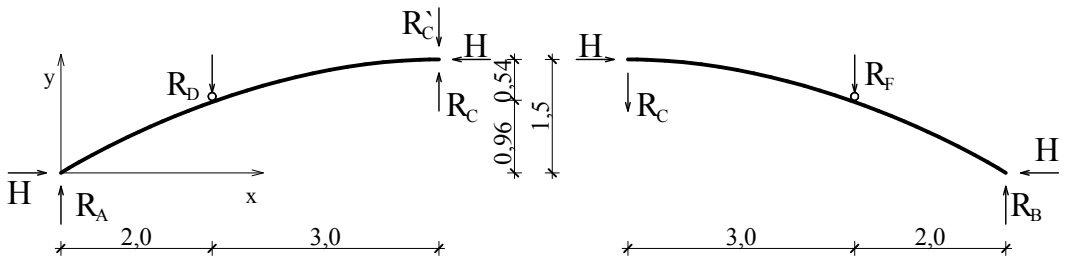
$$\sum M_G = 0$$
$$4R_F - P(4-x) = 0$$
$$R_F = 1 - \frac{x}{4}$$



$P \in \langle C;F \rangle$
$x \in \langle 0;3 \rangle$

$$\sum M_C = 0$$
$$Px - 3R_F = 0$$
$$R_F = \frac{x}{3}$$

$$\sum M_F = 0$$
$$3R'_C - P(3-x) = 0$$
$$R'_C = 1 - \frac{x}{3}$$



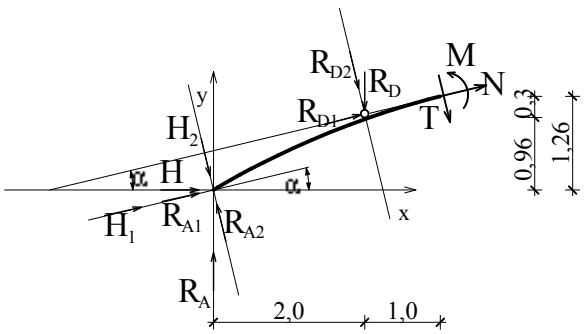
$$\sum M_C^L = 0$$
$$5R_A - 1{,}5H - 3R_D = 0$$

$$\sum M_A^L = 0$$
$$2R_D + 5R'_C - 5R_C - 1{,}5H = 0$$

$$\sum M_C^P = 0$$
$$5R_B - 1{,}5H - 3R_F = 0$$

$$\sum M_B^P = 0$$
$$1{,}5H - 5R_C - 2R_F = 0$$

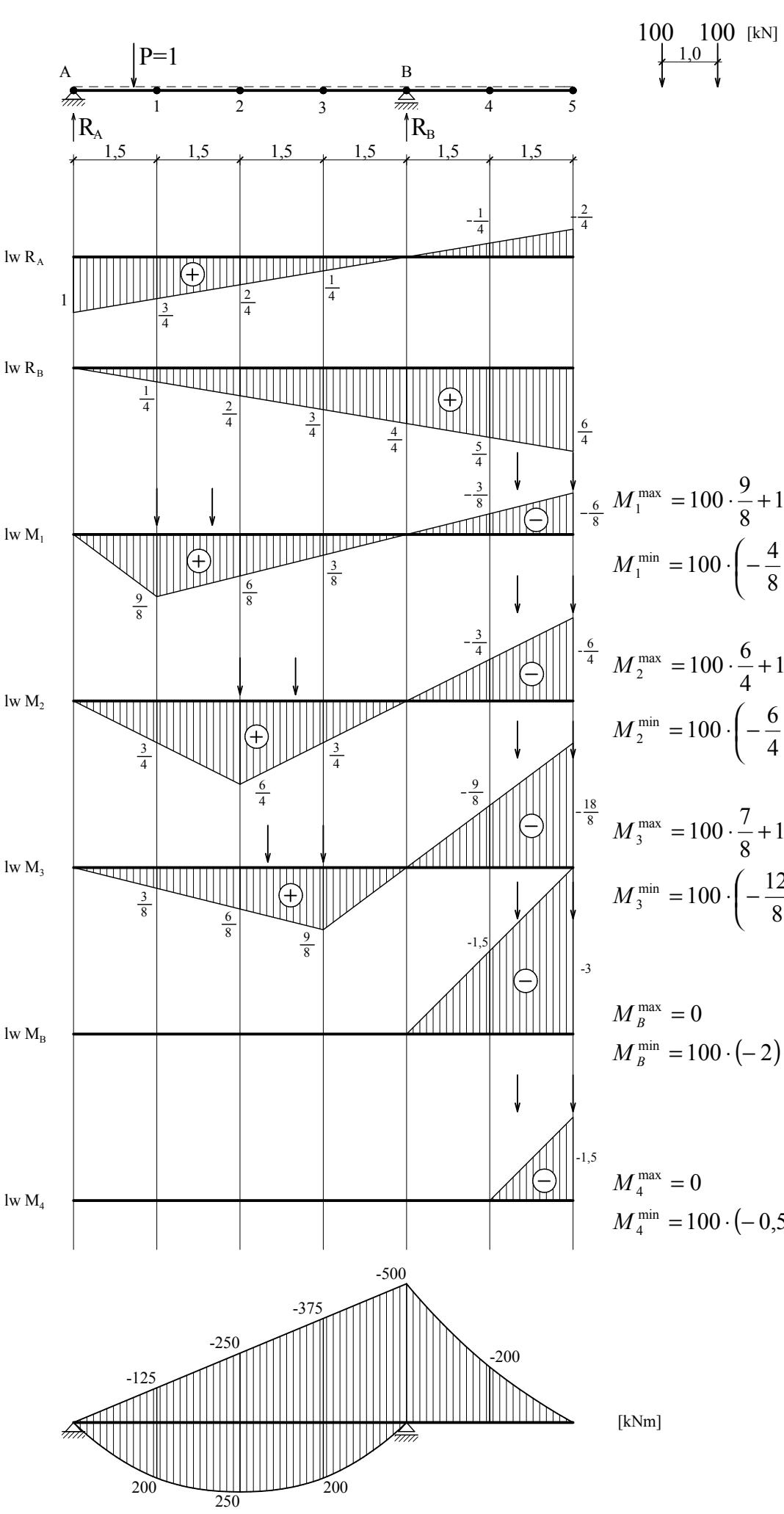
$$H = \frac{2}{5}R'_C + \frac{2}{3}R_D + \frac{2}{3}R_F$$
$$R_A = \frac{3}{10}H + \frac{6}{10}R_D$$
$$R_B = \frac{3}{10}H + \frac{6}{10}R_F$$



$$\sum X' = 0$$
$$H\cos\alpha + R_A\sin\alpha - R_D\sin\alpha + N = 0$$
$$N = -0{,}972H - 0{,}233R_A + 0{,}233R_D$$

$$\sum Y' = 0$$
$$-H\sin\alpha + R_A\cos\alpha - R_D\cos\alpha - T = 0$$
$$T = -0{,}233H + 0{,}972R_A - 0{,}972R_D$$

$$\sum M_a = 0$$
$$3R_A - 1{,}26H - R_D - M_a = 0$$
$$M_a = 3R_A - 1{,}26H - R_D$$



$$M_1^{max} = 100 \cdot \frac{9}{8} + 100 \cdot \frac{7}{8} = 200$$

$$M_1^{min} = 100 \cdot \left(-\frac{4}{8}\right) + 100 \cdot \left(-\frac{6}{8}\right) = -125$$

$$M_2^{max} = 100 \cdot \frac{6}{4} + 100 \cdot \frac{4}{4} = 250$$

$$M_2^{min} = 100 \cdot \left(-\frac{6}{4}\right) + 100 \cdot \left(-\frac{4}{4}\right) = -250$$

$$M_3^{max} = 100 \cdot \frac{7}{8} + 100 \cdot \frac{9}{8} = 200$$

$$M_3^{min} = 100 \cdot \left(-\frac{12}{8}\right) + 100 \cdot \left(-\frac{18}{8}\right) = -375$$

$$M_B^{max} = 0$$

$$M_B^{min} = 100 \cdot (-2) + 100 \cdot (-3) = -500$$

$$M_4^{max} = 0$$

$$M_4^{min} = 100 \cdot (-0{,}5) + 100 \cdot (-1{,}5) = -200$$