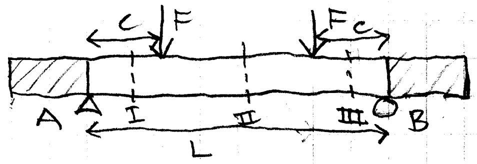


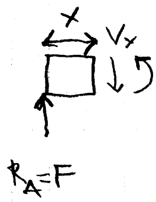
$\overset{\curvearrowright}{A}$: $F\cdot c + \underbrace{F\cdot(L-c)} - R_B\cdot L = 0$

$$\cancel{F\cdot c} + F\cdot L - \cancel{F\cdot c} - R_B\cdot L = 0$$

$$R_B\cdot L = F\cdot L$$

$$R_B = F$$

$R_A = F$, av symmetriskäl.



I↑: $F - V_x = 0 \Rightarrow V_x = F$, då $0<x<c$

$\overset{\curvearrowright}{I}$: $F\cdot x - M_{bx} = 0 \Rightarrow M_{bx} = F\cdot x$, då $0<x<c$

II↑: $F - F - V_x = 0 \Rightarrow V_x = 0$, då $c<x<L-c$

$\overset{\curvearrowright}{II}$: $F\cdot x - F\cdot(x-c) - M_{bx} = 0 \Rightarrow \cancel{F\cdot x} - \cancel{F\cdot x} + F\cdot c - M_{bx} = 0 \Rightarrow$
$M_{bx} = F\cdot c$, då $c<x<L-c$

III↑: $F - F - F - V_x = 0 \Rightarrow V_x = -F$, då $L-c<x<L$

$\overset{\curvearrowright}{III}$: $F\cdot x - F\cdot(x-c) - F\cdot\underbrace{(c-(L-x))}_{c-L+x} - M_{bx} = 0 \Rightarrow$

$$\cancel{F\cdot x} - \cancel{F\cdot x} + \cancel{F\cdot c} - \cancel{F\cdot c} + F\cdot L - F\cdot x - M_{bx} = 0 \Rightarrow$$

$M_{bx} = F\cdot L - F\cdot x = F\cdot(L-x)$, då $L-c<x<L$

Slutsats: $\underline{\underline{M_{bmax} = F\cdot c}}$ (Studera max-värde för M_{bx} i snitt I, II och III.)