3.

$F = ?$

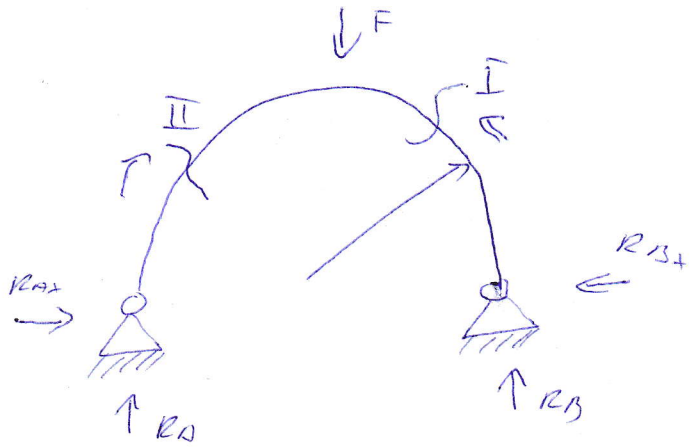
$a = 30\,mm$

$R = 600\,mm$

11 370 $\quad Re = 250$

$k_r = 2$

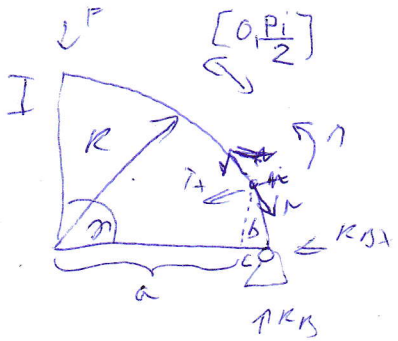
$\sigma_D = \frac{Re}{k_r}$



$R_A = \frac{F}{2}$

$R_B = \frac{F}{2}$

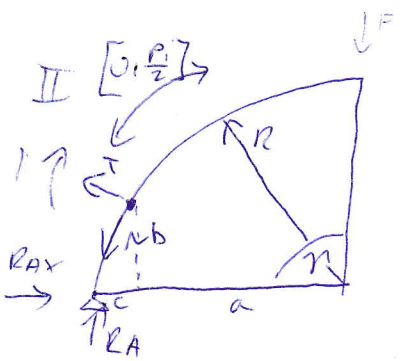
$R_{Ax} = R_{Bx}$



$M_{O1} = -R_{Bx} \cdot b + R_B \cdot c$

$M_{O1} = -R_{Bx} \cdot (\sin\varphi \cdot R) + R_B \cdot (R - \cos\varphi \cdot R)$

$\frac{dM_{O1}}{dR_B} =$



$M_{O2} = -R_{Ax} \cdot b + R_A \cdot c$

$M_{O2} = -R_{Ax} \cdot (\sin\varphi \cdot R) + R_A \cdot (R - \cos\varphi \cdot R)$

$\frac{M_{O2}}{dR_B} =$