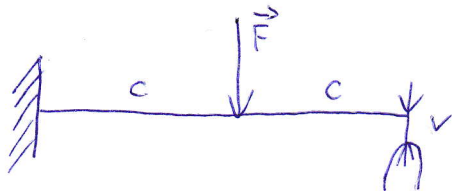


1 URČI BEZPEČNOST VŮČI PRŮŽNÁMU STAVU PRUŽNOSTI A NÁTOKEMÍ PRŮTU V MÍSTĚ PODPORY



$$\sigma_k = 120 \text{ MPa}$$

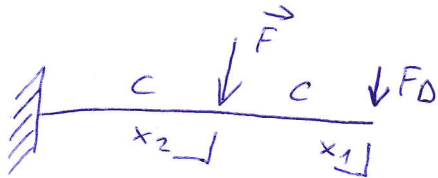
$$F = 100 \text{ N}$$

$$c = 500 \text{ mm}$$

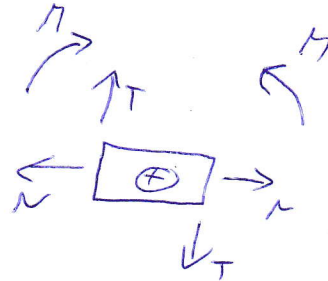
$$\text{PRŮŘEZ } \square 20 \times 20$$

$$v = 0,5 \text{ mm}$$

$$\lambda = 3 - 3 - 1 = -1 \quad \underline{\underline{1 \times SN}}$$



$$w_{F_0} \leq 0,5 \text{ ?}$$



$$x_1 < 0, c)$$

$$\Pi_{01} = -F_0 \cdot x_1$$

$$\frac{d\Pi_{01}}{dF_0} = -x_1$$

$$x_2 < 0, c)$$

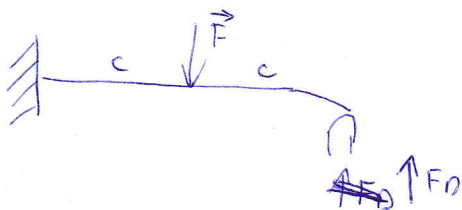
$$\Pi_{02} = -F_0 \cdot (c + x_2) + F \cdot x_2$$

$$\frac{d\Pi_{02}}{dF_0} = -c + x_2$$

ŘEŠENÍ WADV MATLABU

$$w_{F_0} = \underline{\underline{3,72}}$$

$w_{F_0} > v$ DOTKNE SE

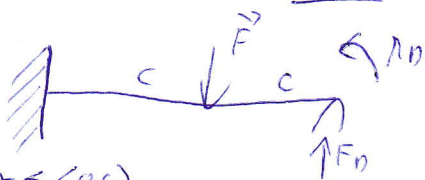


$$F_0 = ?$$

$$q_{F_0} = ?$$

$$w_{F_0} = -0,5 = \frac{1}{EI} \cdot (\text{INT}(\Pi_{01} \cdot d\Pi_{01}, x_1, 0, c) + \text{INT}(\Pi_{02} \cdot d\Pi_{02}, x_1, 0, c))$$

$$\cancel{F_0} \quad F_0 = \underline{\underline{27,1}}$$



$$x \in (0, c)$$

$$\Pi_{01} = F_0 \cdot x + M_0$$

$$\frac{d\Pi_{01}}{dM_0} = 1$$

$$x \in (0, c)$$

$$\Pi_{02} = F_0 \cdot (c + x) + M_0 - F \cdot x$$

$$\frac{d\Pi_{02}}{dM_0} = 1$$

$$q_{M_0} =$$