

$$\sum M_A \quad B_y \cdot 6 - 30 \cdot 4 - 20 \cdot 1 = 0$$

$$B_y = 23.3 \text{ kN}$$

$$\sum F_y \quad A_y - 20 - 30 + B_y = 0$$

$$A_y = +20 + 30 - 23.3$$

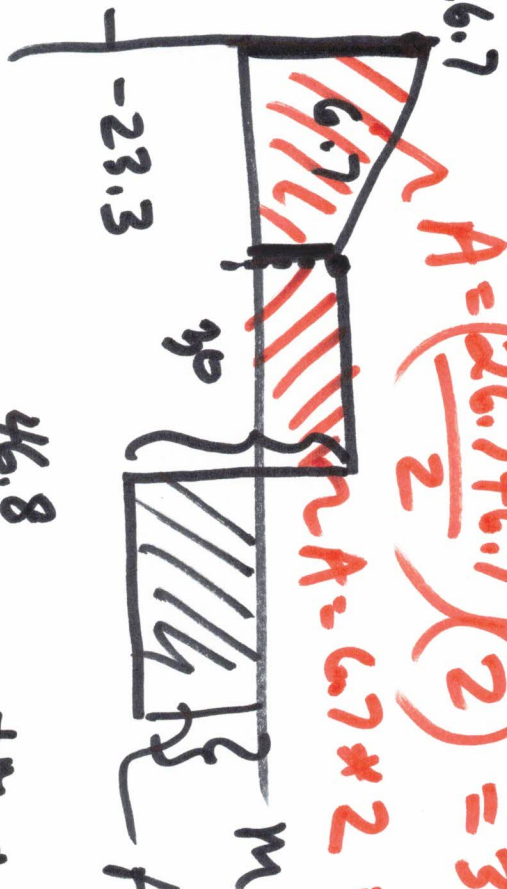
$$A_y = 26.7$$

10 kN/m



V 26.7

(kN)

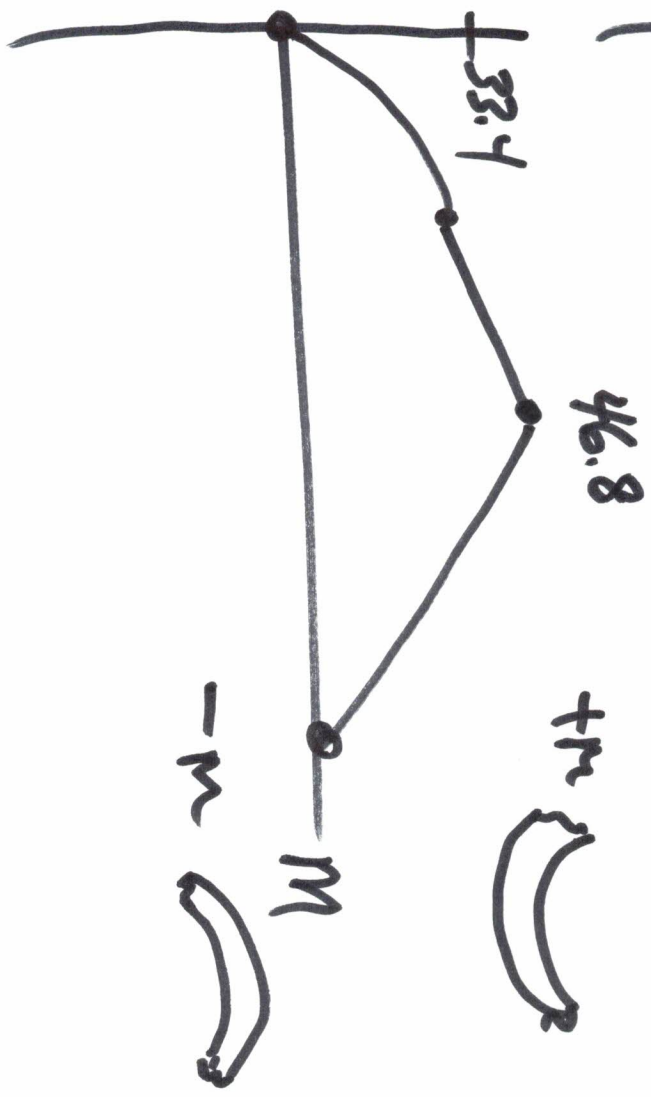


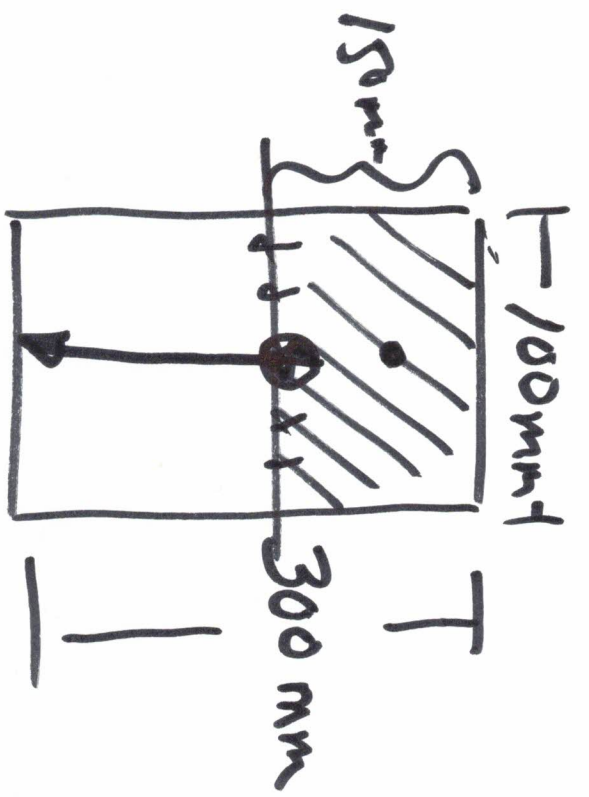
$$A = \left( \frac{26.7 + 6.7}{2} \right) (2) = 33.4$$

$$A = 6.7 * 2 = 13.4$$

$$A = (-23.3) (2)$$

M kN.m





$$\sigma = -\frac{M y}{I}$$

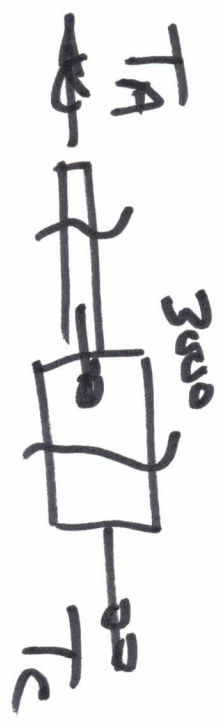
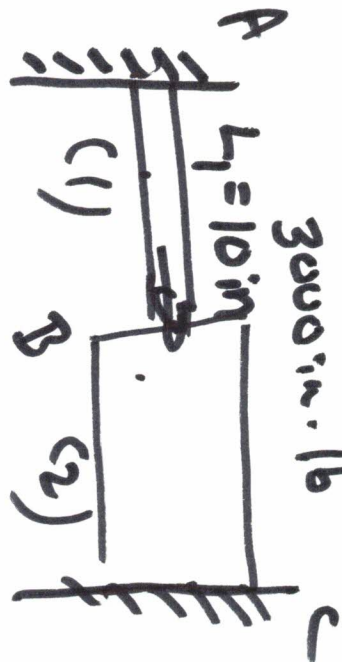
$$\frac{I}{I}$$

$$I = \frac{1}{12} (6.100) (3300)^3 \text{ m}^4$$

$$\sigma = \frac{-46.8 (10^3) (-0.150)}{\frac{1}{12} 0.1 (0.3)^3} \text{ Pa}$$

$$T = \frac{V Q}{I \tau} = \frac{26.7 (10^3) Q}{\frac{1}{12} (0.1) (0.3)^3 (0.1)} \text{ Pa}$$

$$Q = \underbrace{0.075}_y \underbrace{(0.1)(0.15)}_A$$

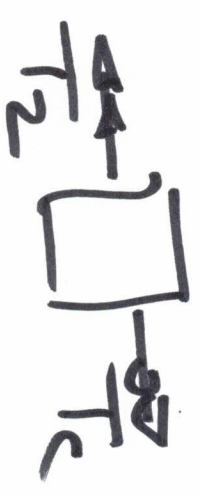


$$\sum F = 0 \quad -T_A + 3000 + T_C = 0$$

$$\phi_1 + \phi_2 = 0$$



$$T_1 = T_A$$



$$T_2 = T_C$$

$$\frac{T_1 L_1}{I \rho_1 \delta_1} + \frac{T_2 L_2}{I \rho_2 \delta_2} = 0$$

$$T_1 = -T_2 \frac{L_2}{L_1} \frac{I \rho_1 \delta_1}{I \rho_2 \delta_2}$$

$$-T_1 + 3000 + T_2 = 0$$

Sub for  $T_2$  &  $T_1$

$$T_{max1} = \frac{T_1 d_1/2}{I_{p1}}$$

$$T_{max2} = \frac{T_2 d_2/2}{I_{p2}}$$

$$\phi_B = \phi_1 \quad \phi_B = |\phi_2|$$

