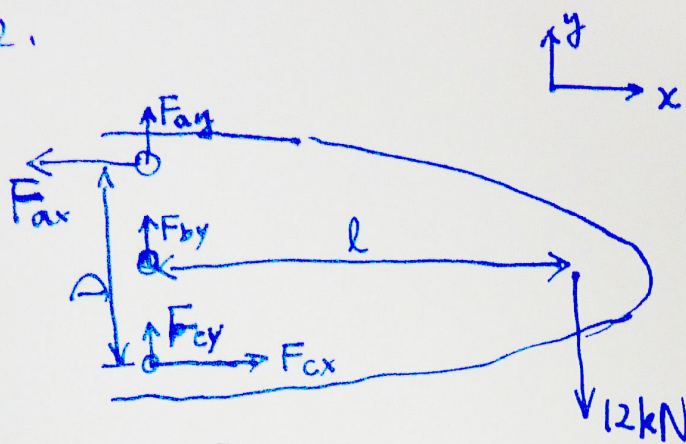


Prob. 2.

~~(A)~~



$$\left. \begin{aligned} F_{ax} &= F_{cx} \\ F_{ay} + F_{by} + F_{cy} &= 12\text{ kN} \end{aligned} \right\} \text{Force balance.}$$

$$F_{ax} \cdot \frac{D}{2} + F_{cx} \cdot \frac{D}{2} = M = 12\text{ kN} \cdot l \quad \text{--- Torque balance.}$$

same deformation, $F_{ay} = F_{by} = F_{cy}$

$$\Rightarrow \begin{cases} F_{ax} = F_{cx} = 37.5\text{ kN} \\ F_{ay} = F_{by} = F_{cy} = 4.0\text{ kN} \end{cases}$$

$$\Rightarrow \begin{cases} F_a = \sqrt{F_{ax}^2 + F_{ay}^2} = 37.7\text{ kN} \\ F_b = F_{by} = 4.0\text{ kN} \\ F_c = \sqrt{F_{cx}^2 + F_{cy}^2} = 37.7\text{ kN} \end{cases}$$

Solution 2 of 2.