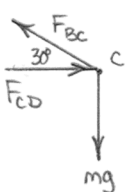


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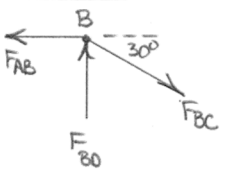
$F_{AE} = 0$ (INSPECTION)

• JOINT C:



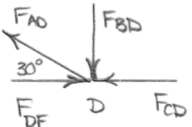
$$\begin{cases} \sum F_x = 0: -F_{BC} \cos 30^\circ + F_{CD} = 0 \\ \sum F_y = 0: F_{BC} \sin 30^\circ - mg = 0 \end{cases} \rightarrow \begin{cases} F_{BC} = 2mg \text{ T} \\ F_{CD} = 1.732mg \text{ C} \end{cases}$$

• JOINT B:



$$\begin{cases} \sum F_x = 0: F_{BC} \cos 30^\circ - F_{AB} = 0 \\ \sum F_y = 0: F_{BO} - F_{BC} \sin 30^\circ = 0 \end{cases} \rightarrow \begin{cases} F_{AB} = 1.732mg \text{ T} \\ F_{BO} = mg \text{ C} \end{cases}$$

• JOINT D:



$$\begin{cases} \sum F_x = 0: F_{DE} - F_{CD} - F_{AD} \cos 30^\circ = 0 \\ \sum F_y = 0: F_{AD} \sin 30^\circ - F_{BO} = 0 \end{cases} \rightarrow \begin{cases} F_{AD} = 2mg \text{ T} \\ F_{DE} = 3.46mg \text{ C} \end{cases}$$

• MAX TENSION: $F_{BC} = 2mg = 24 \text{ kN} \rightarrow m = 1223 \text{ kg}$

• MAX COMPRESSION: $F_{DE} = 3.46mg = 35 \text{ kN} \rightarrow m = 1030 \text{ kg}$

So... $m_{\max} = 1030 \text{ kg}$