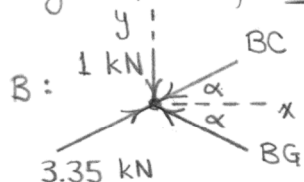


4/24 By symmetry, $A = E = 2.5 \text{ kN}$; $\alpha = \tan^{-1}\left(\frac{2}{4}\right) = 26.6^\circ$

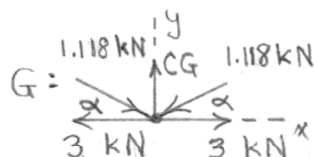
Joint A analysis same as Prob. 4/19: $\begin{cases} AB = 3.35 \text{ kN C} \\ AH = 3 \text{ kN T} \end{cases}$
By inspection, $BH = 0$ and $GH = AH$.



$$\sum F_y = 0: -1 + 3.35 \sin \alpha + BG \sin \alpha - BC \sin \alpha = 0$$

$$\sum F_x = 0: 3.35 \cos \alpha - BC \cos \alpha - BG \cos \alpha = 0$$

$\Rightarrow BC = 2.24 \text{ kN C}, \quad BG = 1.118 \text{ kN C}$



$$\sum F_y = 0: CG - 2(1.118) \sin \alpha = 0$$

$CG = 1 \text{ kN T}$

By symmetry,

$$\begin{cases} DE = AB = 3.35 \text{ kN C} \\ CD = BC = 2.24 \text{ kN C} \\ EF = AH = 3 \text{ kN T} \\ DF = BH = 0 \\ FG = GH = 3 \text{ kN T} \\ DG = BG = 1.118 \text{ kN C} \end{cases}$$