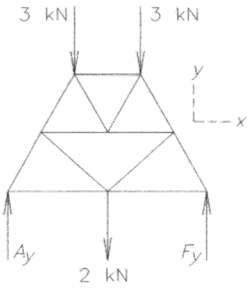
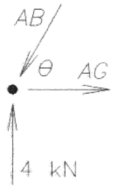
4/15



By symmetry, $A_y = F_y = 4$ kN

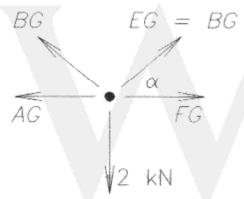
Joint A:



$$\theta = \cos^{-1}\frac{1}{2} = 60°$$

$$\begin{cases} \Sigma F_y = 0: \ 4\text{ kN} - AB\sin 60° = 0, \ AB = 4.62\text{ kN } C \\ \Sigma F_x = 0: \ AG - 4.62\cos 60° = 0, \ AG = 2.31\text{ kN } T \end{cases}$$

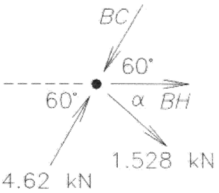
Joint G:



$$\alpha = \tan^{-1}\frac{2\sin 60°}{2} = 40.9°$$

$$\Sigma F_y = 0: \ 2BG\sin 40.9° - 2 = 0, \ \underline{BG = 1.528\text{ kN } T}$$

Joint B:



$$\Sigma F_y = 0: \ 4.62\sin 60° - BC\sin 60° - 1.528\sin 40.9° = 0$$

$$\underline{BC = 3.46\text{ kN } C}$$