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$$\begin{cases} \sum F_x = 0: A_x + 17 + \frac{3}{5} 24 = 0 \\ \sum F_y = 0: A_y + N_E - \frac{4}{5} 24 - 30 = 0 \\ \sum M_A = 0: 32 N_E - 24(30) - 12(17) - 24(10) = 0 \end{cases}$$

$A_x = -31.4 \text{ kN}$ $A_y = 12.83 \text{ kN}$ $N_E = 36.4 \text{ kN}$

$F_{BH} = 0$ AND $F_{DE} = 0$ AND $F_{CI} = 0$

• JOINT A:

$$\begin{cases} \sum F_x = 0: \frac{4}{5} F_{AB} + F_{AH} - A_x = 0 \\ \sum F_y = 0: A_y + \frac{3}{5} F_{AB} = 0 \end{cases}$$

$F_{AB} = -21.4 \text{ kN (C)}$
 $F_{AH} = F_{GH} = 48.5 \text{ kN T}$

• JOINT E:

$$\begin{cases} \sum F_x = 0: \frac{4}{5} F_{DE} - F_{EF} = 0 \\ \sum F_y = 0: N_E - \frac{3}{5} F_{DE} = 0 \end{cases}$$

$F_{DE} = 60.6 \text{ kN C}$
 $F_{EF} = F_{FG} = 48.5 \text{ kN T}$

• JOINT G:

$$\begin{cases} \sum F_x = 0: F_{FG} - F_{GH} + \frac{4}{5} F_{GC} - \frac{4}{5} F_{GB} = 0 \\ \sum F_y = 0: \frac{3}{5} F_{GC} + \frac{3}{5} F_{GB} = 0 \end{cases}$$

$F_{BG} = 0$ $F_{DG} = 0$

• JOINT C:

$$\begin{cases} \sum F_x = 0: 17 - \frac{4}{5} F_{BC} - \frac{4}{5} F_{CD} = 0 \\ \sum F_y = 0: \frac{3}{5} F_{CD} - \frac{3}{5} F_{BC} = 0 \end{cases}$$

$F_{BC} = 10.63 \text{ kN T}$ $F_{CD} = 10.63 \text{ kN C}$

• JOINT D:

$$\sum F_x = 0: \frac{4}{5} F_{CD} - \frac{4}{5} F_{DE} + F_{DI} = 0$$

$F_{DI} = F_{BI} = 40 \text{ kN C}$