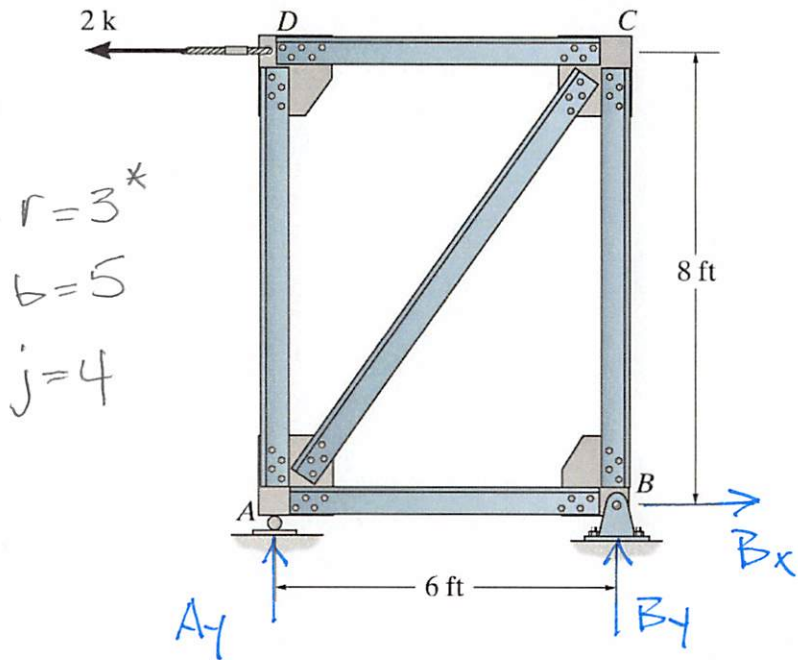


Example 3b-2. Determine all the forces in the following truss.



$$\odot \sum_i M_B = 0 = Zk(\theta') - A_1(\omega') \quad \underline{A_1 = 8/3^k}$$

$$+\uparrow \sum F_y = 0 = A_y + B_y \quad \underline{B_y = -8/3 \text{ k}}$$

$$\overset{+}{\rightarrow} \sum F_x = 0 = B_x - 2k \quad \underline{B_x = 2k}$$

JOINT B



$$\begin{aligned}
 + \uparrow \sum F_y &= 0 \\
 &= F_{BC} - \frac{8}{3}k \\
 F_{BC} &= \frac{8}{3}k
 \end{aligned}$$

$$\begin{aligned} \rightarrow \sum F_x &= 0 \\ &= -F_{AB} + 2k \end{aligned}$$

$$F_{AB} = Z^k$$

JOINT D

$2k$
 $\leftarrow \bullet \rightarrow F_{CD} + \uparrow \sum F_y = 0 = -F_{AD}$

$$\begin{aligned} \rightarrow \sum F_x &= 0 \\ &= F_{CD} - Z^k \end{aligned}$$

$$\overline{F}_{CD} = 2k$$

JOINT C

$$+\uparrow \sum F_y = 0$$

$$= -F_{BC} - \frac{4}{5}F_{AC}$$

$$F_{AC} = -10/3 \text{ k}$$