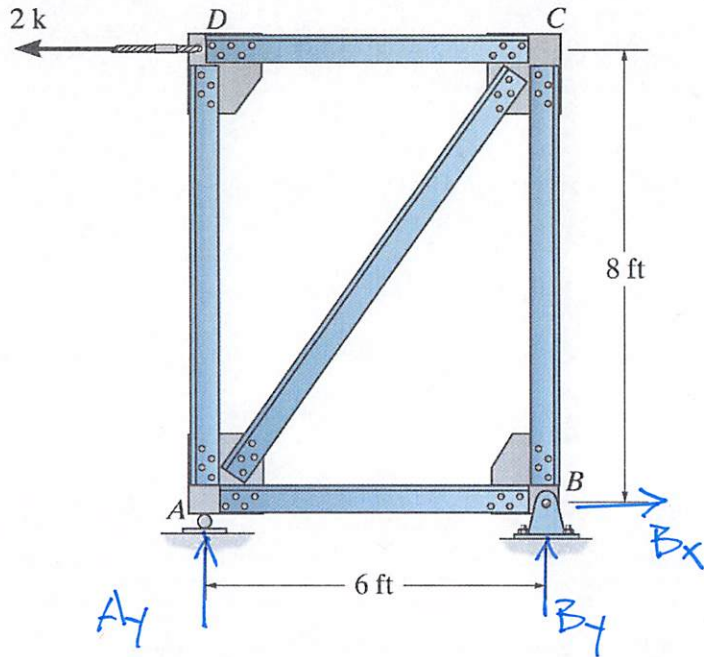


**Example 3b-2.** Determine all the forces in the following truss.



$$\circlearrowleft \sum M_B = 0 = 2k(8') - A_y(6')$$

$$\underline{A_y = 2.67k}$$

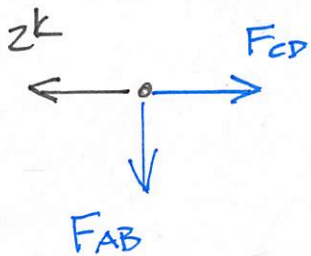
$$+\uparrow \sum F_y = 0 = A_y + B_y$$

$$\underline{B_y = -2.67k}$$

$$+\rightarrow \sum F_x = 0 = B_x - 2k$$

$$\underline{B_x = 2k}$$

JOINT D

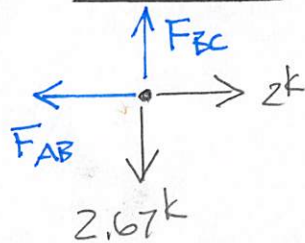


$$+\uparrow \sum F_y = 0 = -F_{AB}$$

$$+\rightarrow \sum F_x = 0 = F_{cd} - 2k$$

$$\underline{\underline{F_{cd} = 2k}}$$

JOINT B



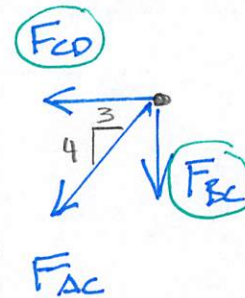
$$+\uparrow \sum F_y = 0 = F_{bc} - 2.67k$$

$$\underline{\underline{F_{bc} = 2.67k}}$$

$$+\rightarrow \sum F_x = 0 = -F_{AB} + 2k$$

$$\underline{\underline{F_{AB} = 2k}}$$

JOINT C



$$+\uparrow \sum F_y = 0 = -F_{bc} - \frac{4}{5} F_{AC}$$

$$\underline{\underline{F_{AC} = -3.33k}}$$