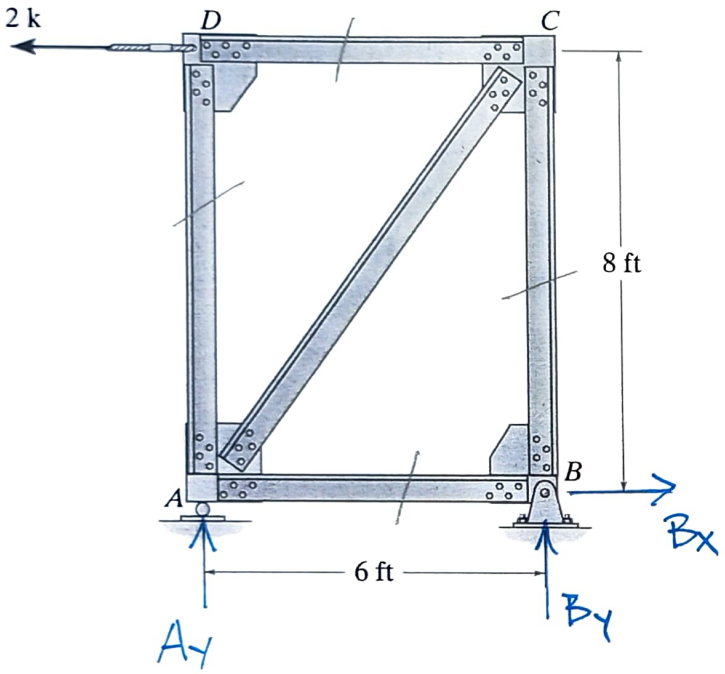
Example 3b-2. Determine all the forces in the following truss.



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

$$A_y = 2.67k$$

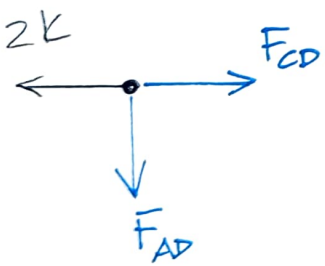
$$+\uparrow \sum F_y = 0 = A_y + B_y$$

$$B_y = -2.67k$$

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

$$B_x = 2k$$

JOINT D



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

$$= -F_{AD} = 0$$

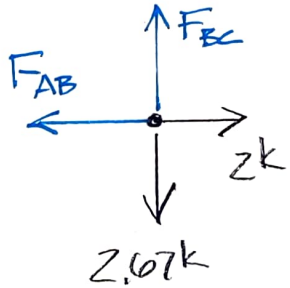
$$F_{AD} = 0$$

$$\rightarrow +\sum F_x = 0$$

$$F_{CD} - 2k$$

$$F_{CD} = 2k$$

JOINT B



$$\rightarrow +\sum F_x = 0$$

$$= -F_{AB} + 2k$$

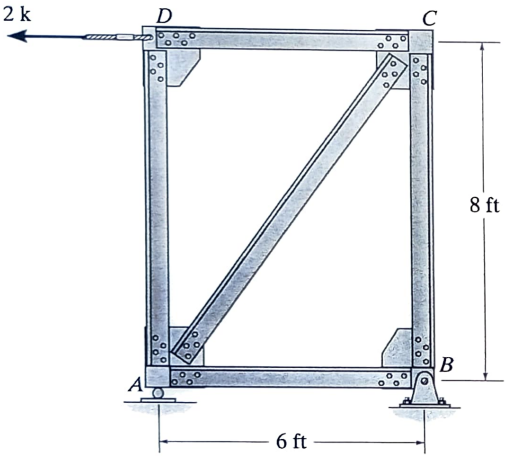
$$F_{AB} = 2k$$

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

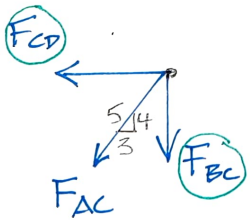
$$= F_{BC} - 2.67k$$

$$F_{BC} = 2.67k$$

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



JOINT C



$$\stackrel{+}{\rightarrow}\sum F_x = 0 = -F_{CD} - \frac{3}{5}F_{AC}$$

$$F_{AC} = -3.33^{k}$$