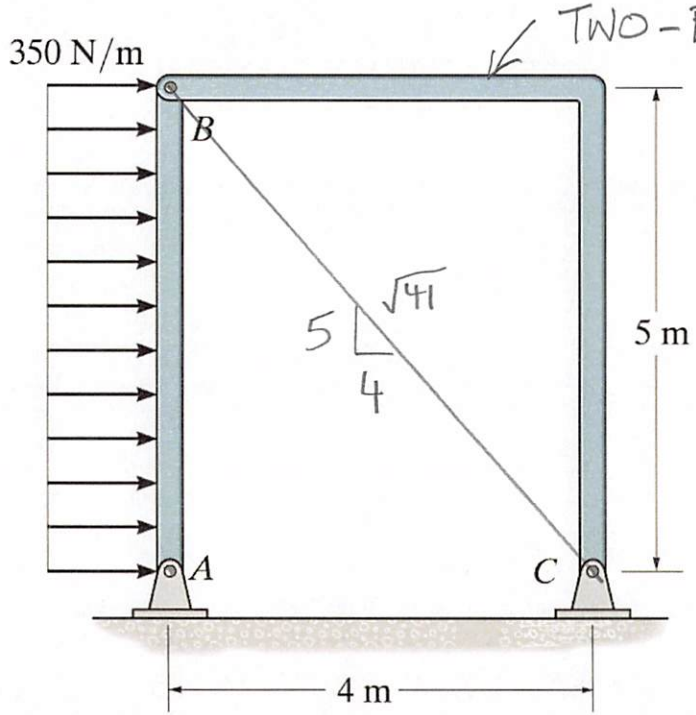
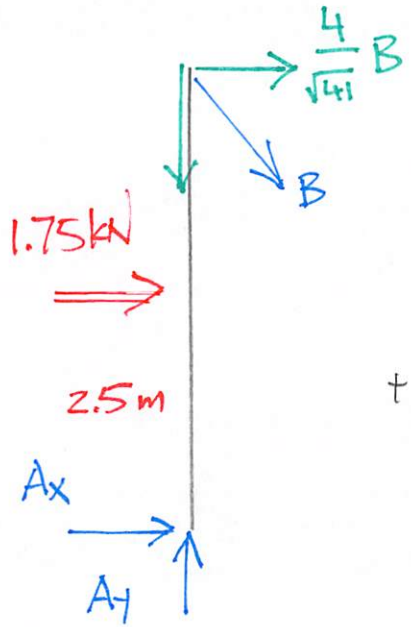
**Problem 2a-4** - Determine the horizontal and vertical reactions at *A* and *C* of the two-member frame.




TWO-FORCE MEMBER

FBD AB




$$\circlearrowleft + \sum M_A = 0$$

$$= -1.75\text{kN}(2.5\text{m}) - \frac{4}{\sqrt{41}}B\,(5\text{m})$$

$$B = -1.40\text{ kN}$$

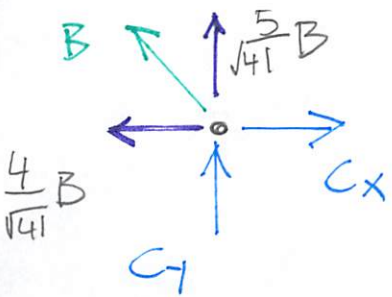
$$+\uparrow \sum F_y = 0 = A_y - \frac{5}{\sqrt{41}}B$$

$$A_y = -1.09\text{ kN}\ *$$

$$\pm \rightarrow \sum F_x = 0 = A_x + 1.75\text{kN} + \frac{4}{\sqrt{41}}B$$

$$A_x = -0.88\text{kN}\ *$$

JOINT C




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

$$= C_y + \frac{5}{\sqrt{41}}B$$

$$C_y = 1.09\text{kN}$$

$$\pm \rightarrow \sum F_x = 0$$

$$= C_x - \frac{4}{\sqrt{41}}B \qquad C_x = -0.88\text{kN}$$