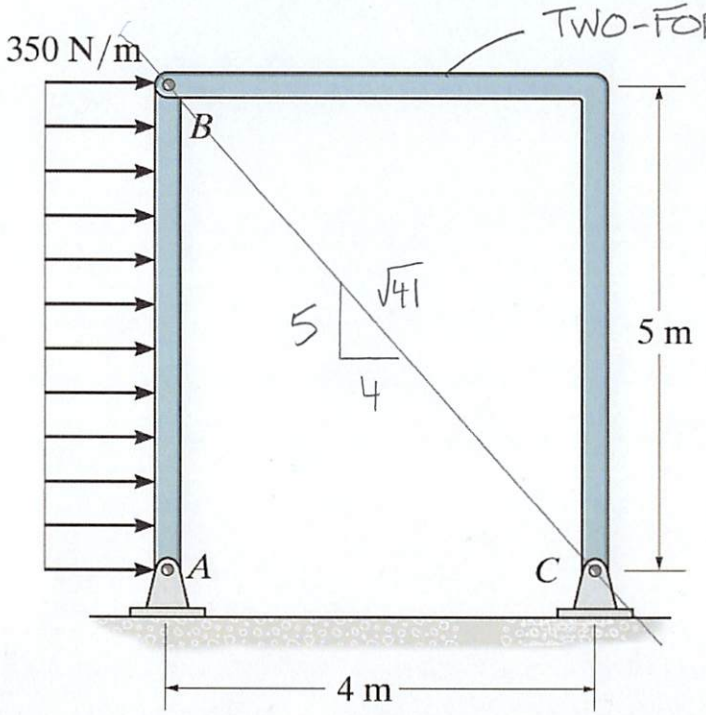
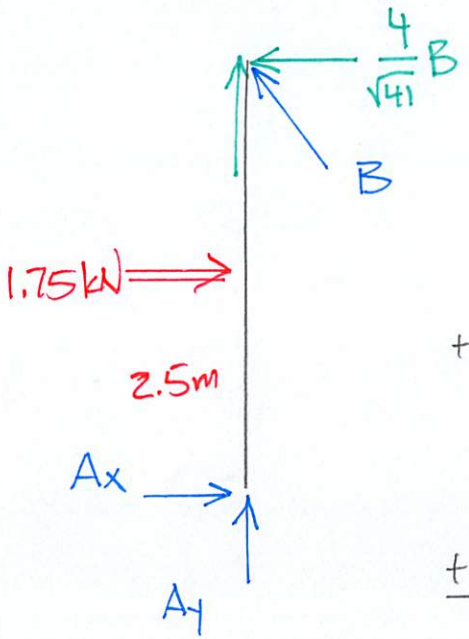
Problem 2a-4 - Determine the horizontal and vertical reactions at *A* and *C* of the two-member frame.



TWO-FORCE MEMBER

FBD AB



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

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

$$B = 1.4\ kN$$

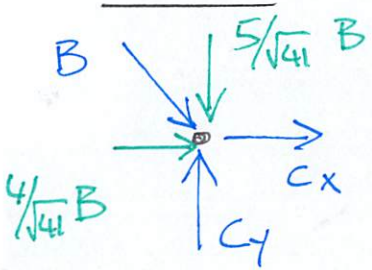
$$+\uparrow \sum F_y = 0 = A_y + \frac{5}{\sqrt{41}}B$$

$$A_y = -1.09\ kN$$

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

$$A_x = -0.88\ kN$$

JOINT C



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

$$= C_y - \frac{5}{\sqrt{41}}B \qquad C_y = 1.09kN$$

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

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