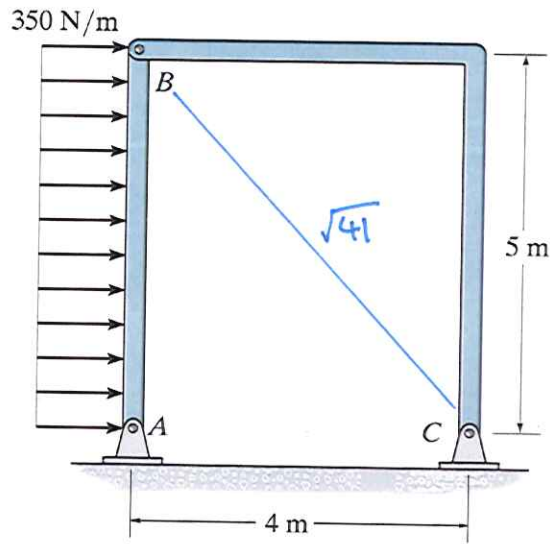
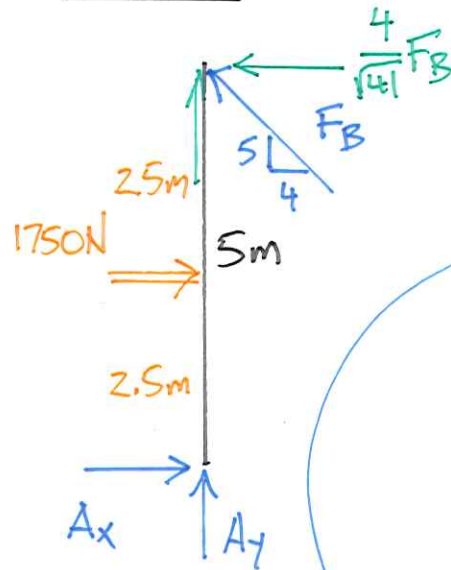


Problem 2-37 - Determine the horizontal and vertical reactions at A and C of the two-member frame.



FBD AB



$$\sum M_A = 0 = \frac{4}{\sqrt{41}} F_B (5\text{m}) - 1750\text{N} (2.5\text{m})$$

$$\underline{\underline{F_B = 1400\text{N}}}$$

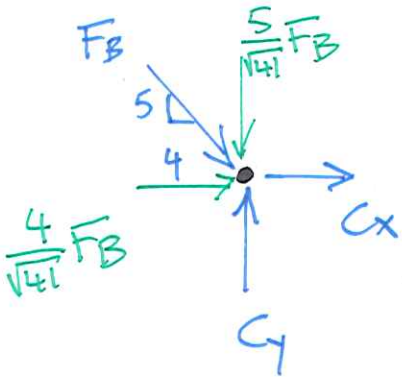
$$\sum F_y = 0 = A_y + \frac{5}{\sqrt{41}} F_B$$

$$\underline{\underline{A_y = -1094\text{N}}}$$

$$\sum F_x = 0 = A_x + 1750\text{N} - \frac{4}{\sqrt{41}} F_B$$

$$\underline{\underline{A_x = -875\text{N}}}$$

FBD C



$$\sum F_y = 0 = C_y - \frac{5}{\sqrt{41}} F_B$$

$$\underline{\underline{C_y = 1094\text{N}}}$$

$$\sum F_x = 0 = C_x + \frac{4}{\sqrt{41}} F_B$$

$$\underline{\underline{C_x = -875\text{N}}}$$