

Exam

Take home

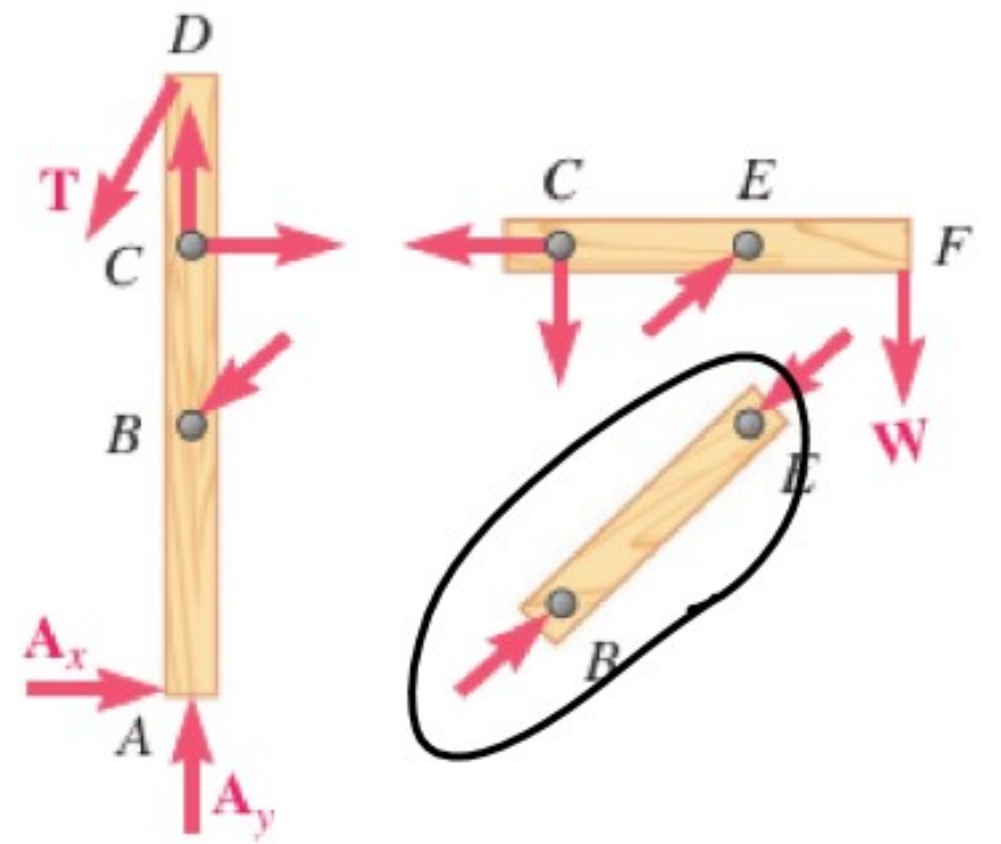
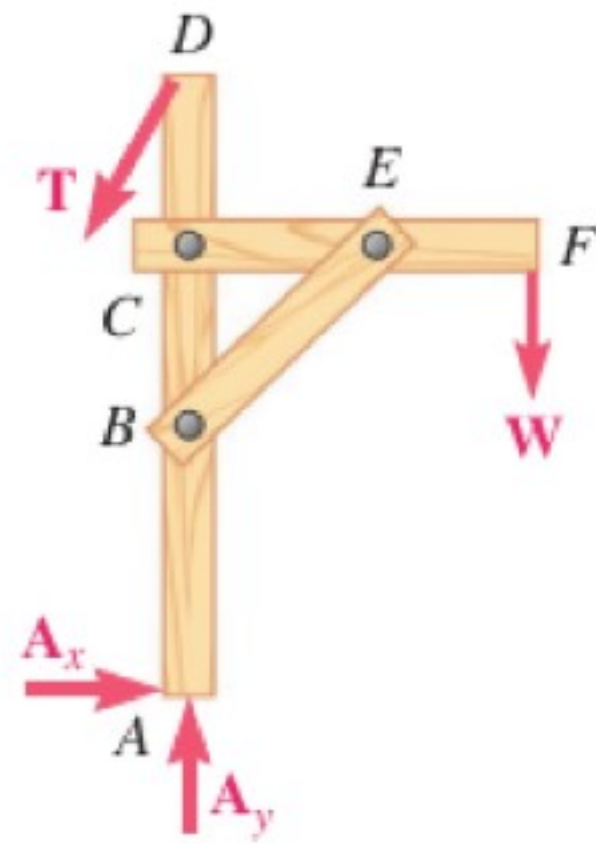
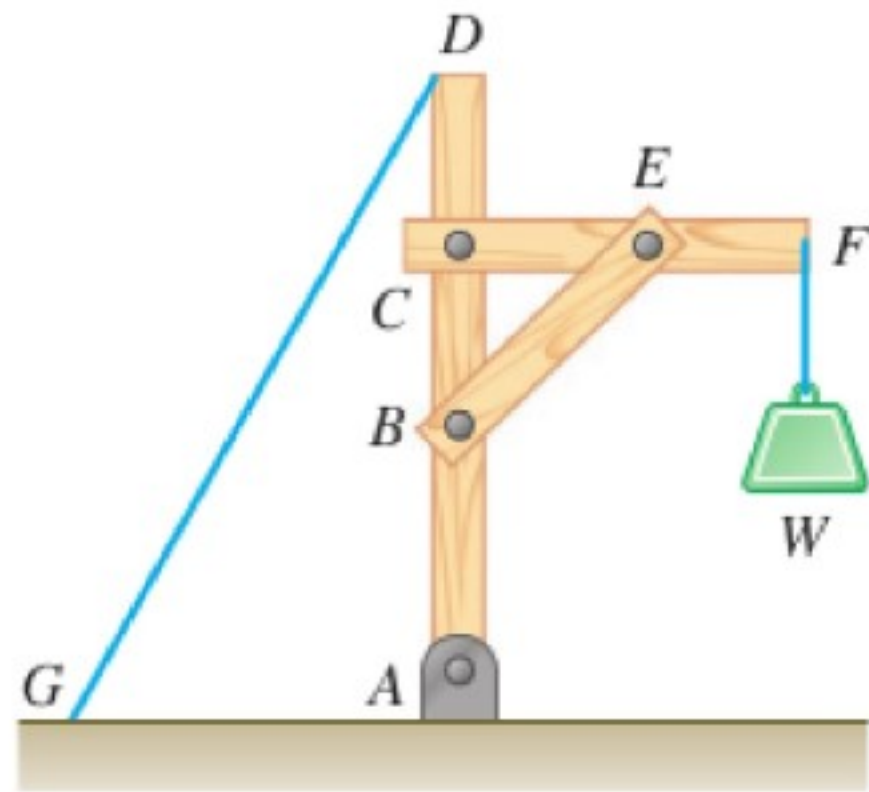
Due Friday 11:00 AM

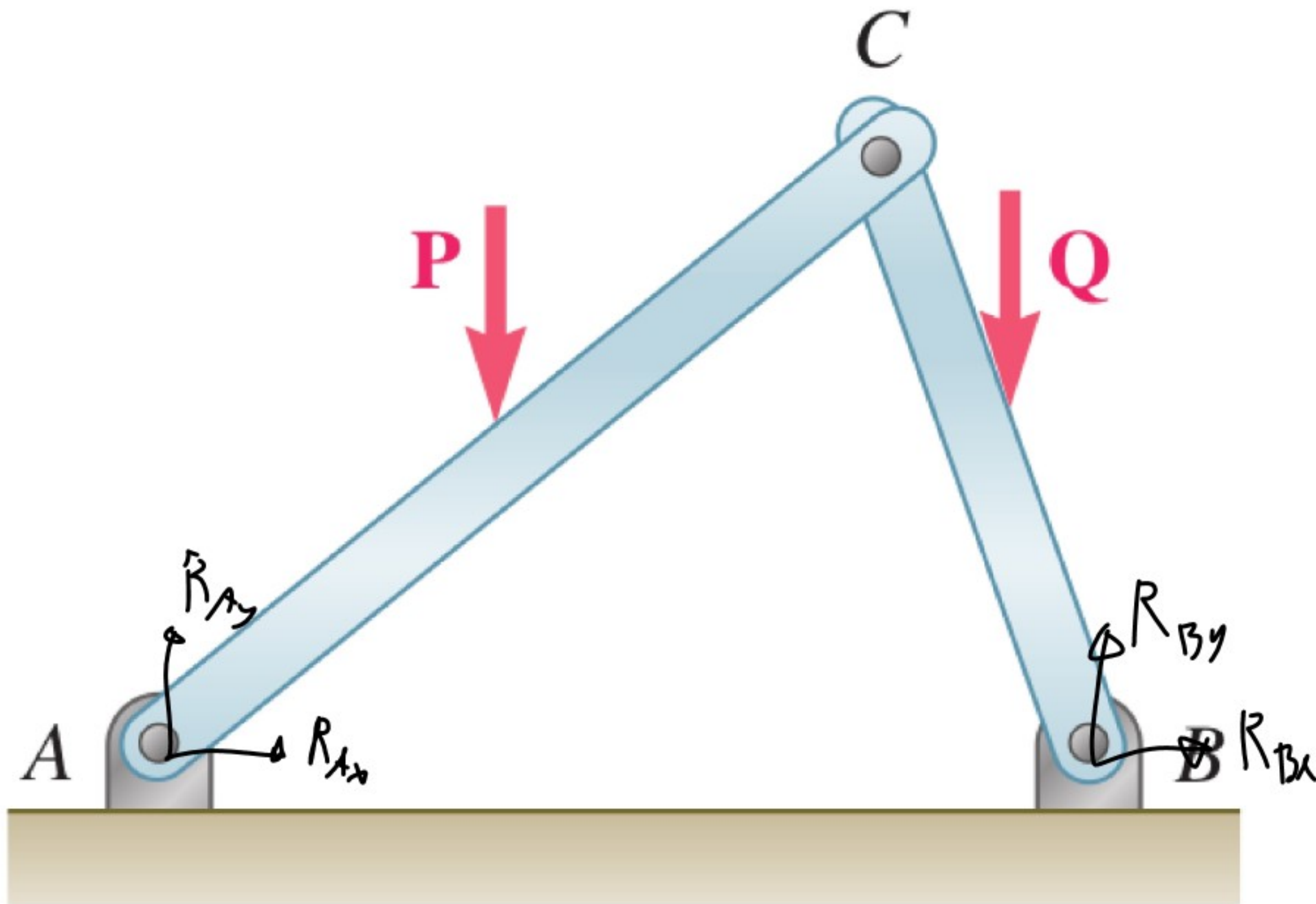
Open Notes

Calculators allowed

No discussing with others

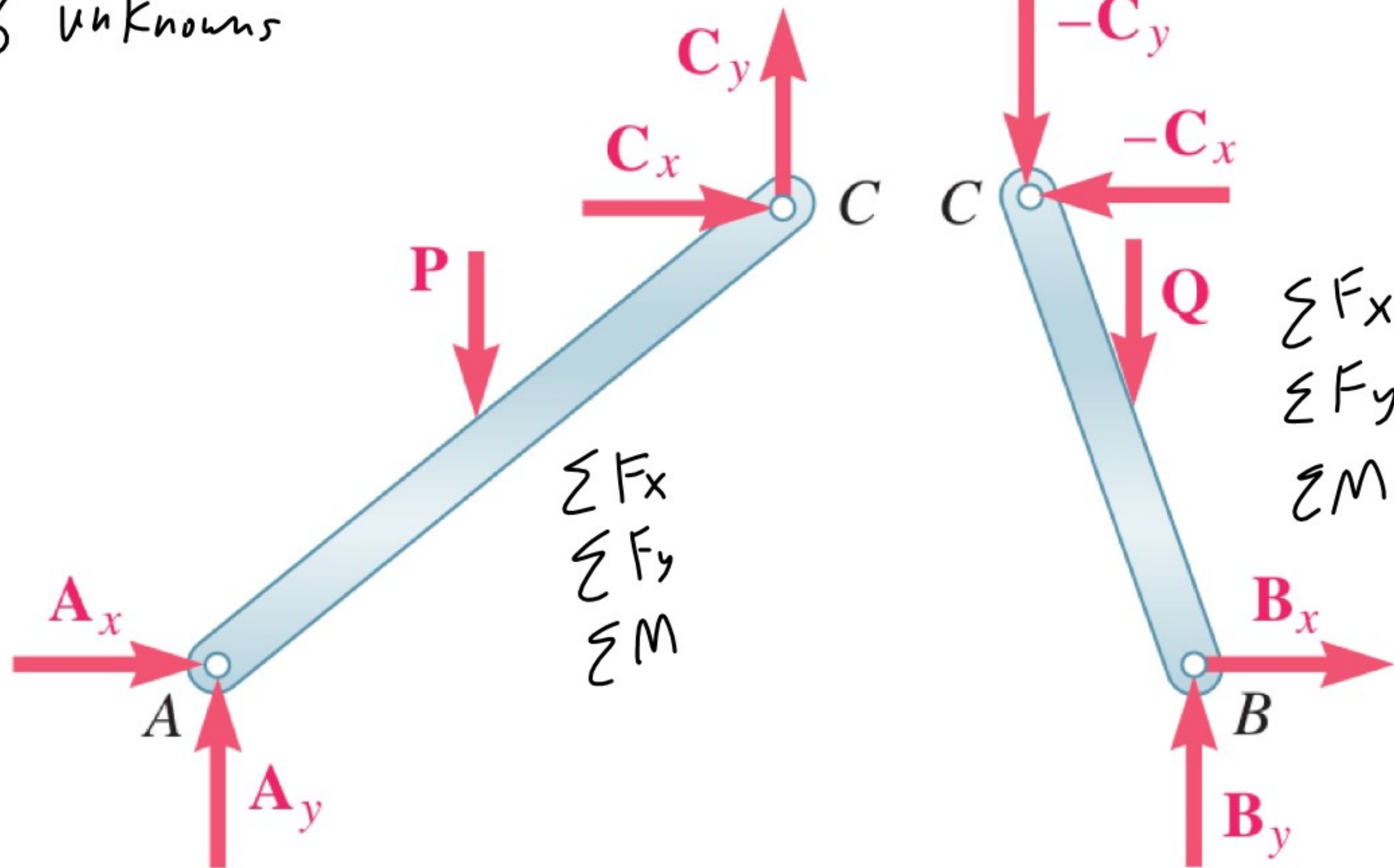
Frames



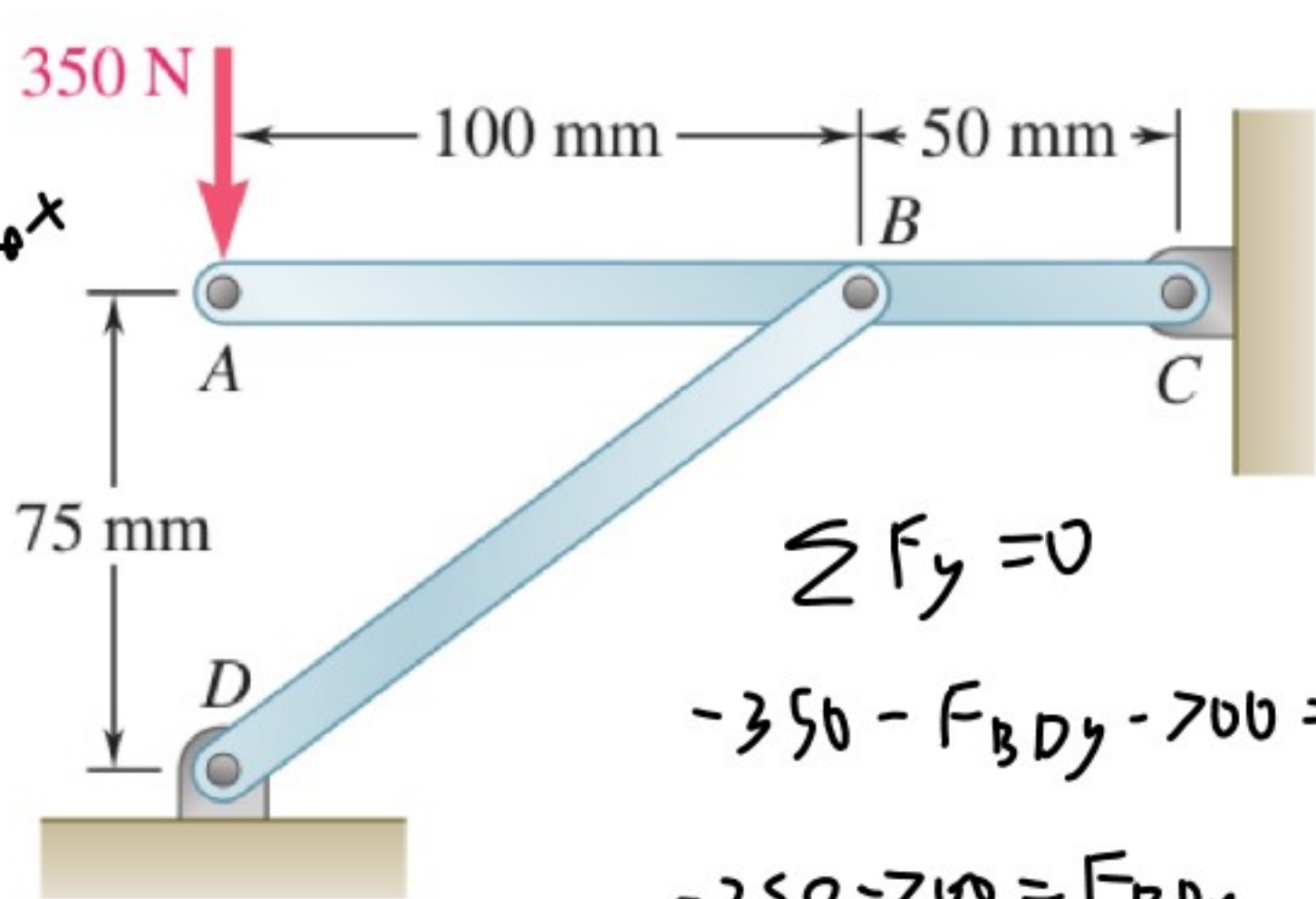
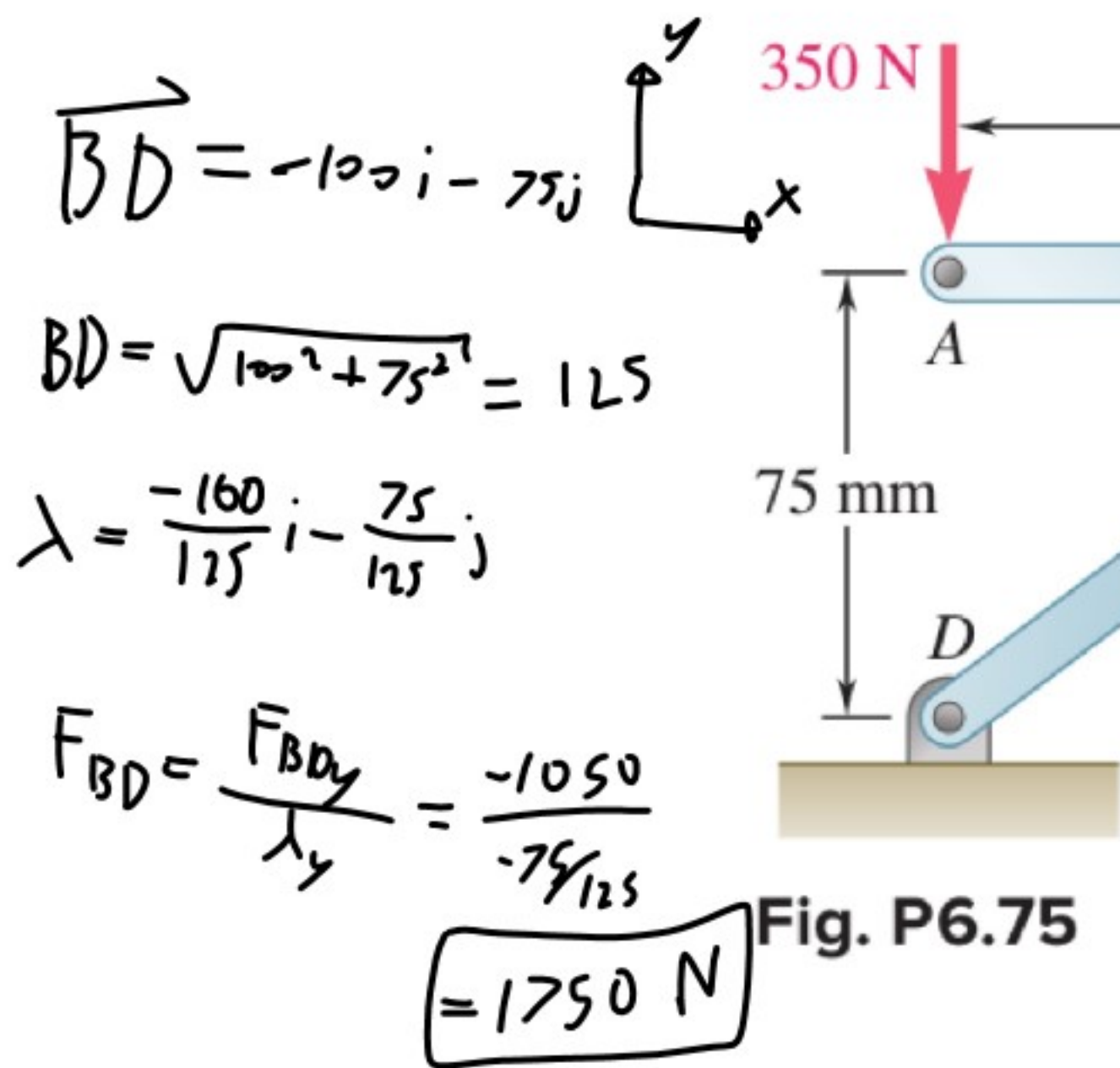


$$\begin{aligned} \sum F_x \\ \sum F_y \\ \sum M_z \end{aligned}$$

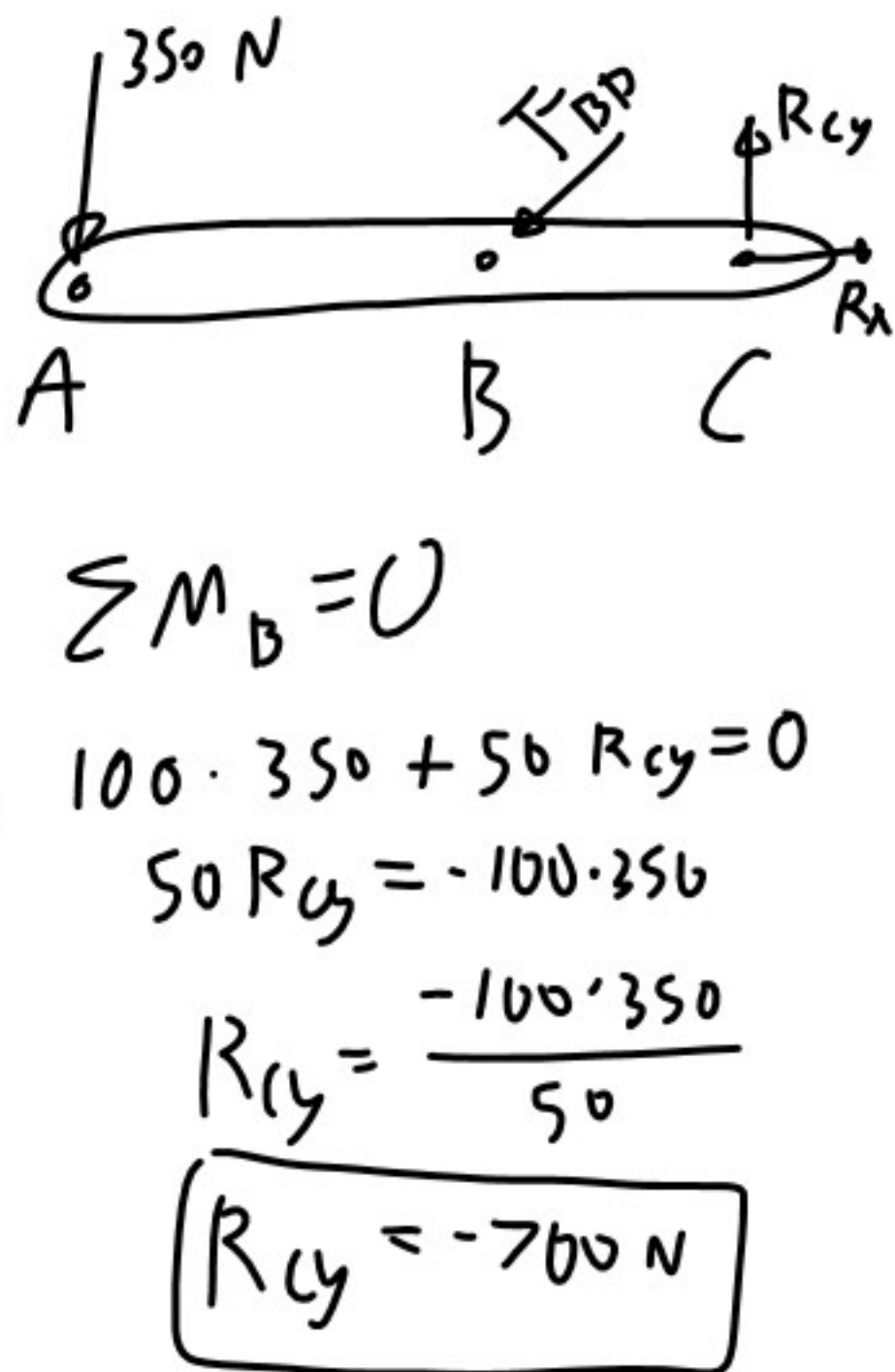
6 unknowns



6.75 and 6.76 Determine the force in member \underline{BD} and the components of the reaction at \underline{C}



$\sum F_y = 0$
 $-350 - F_{BDy} - 700 = 0$
 $-350 - 700 = F_{BDy}$
 $-1050 \text{ N} = F_{BDy}$



$$\sum F_x = 0$$

$$R_{Cx} - F_{BDx} = 0$$

$$R_{Cx} = F_{BDx} = F_{BD} \lambda_x = 1750 \frac{-100}{125} = \boxed{-1400 \text{ N} = R_{Cx}}$$

- 6.77** For the frame and loading shown, determine the force acting on member ABC (a) at B , (b) at C .

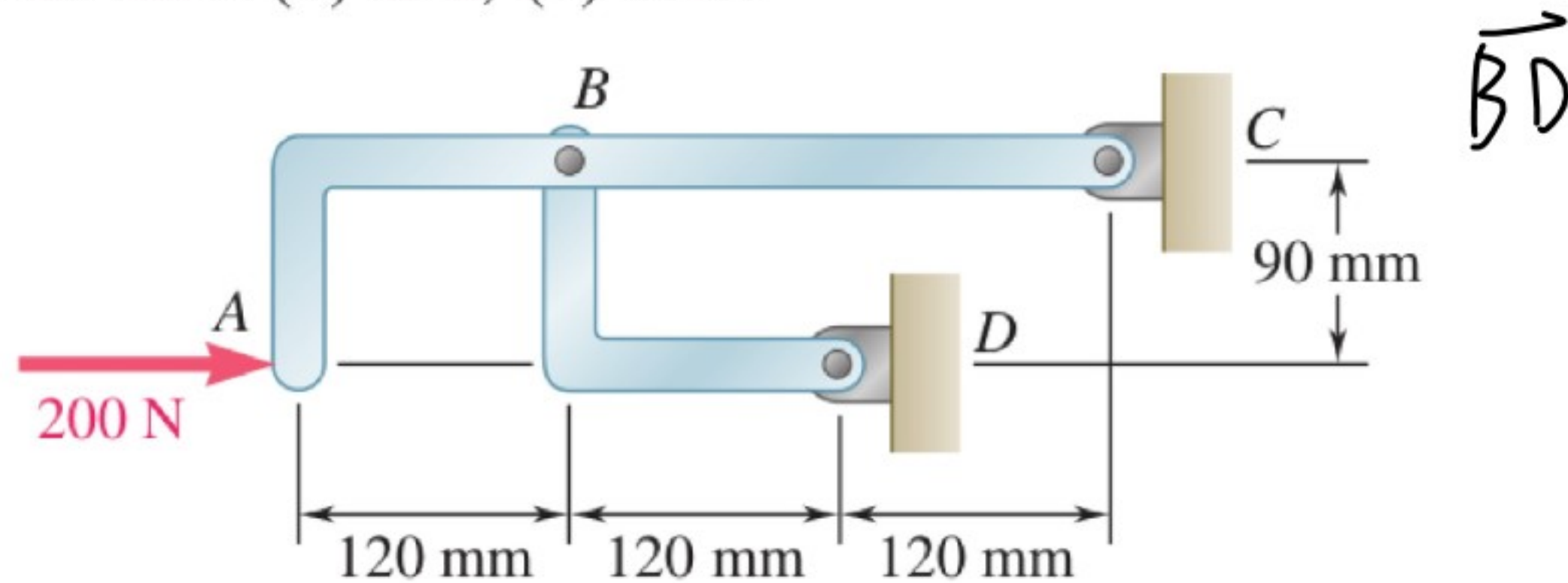


Fig. P6.77