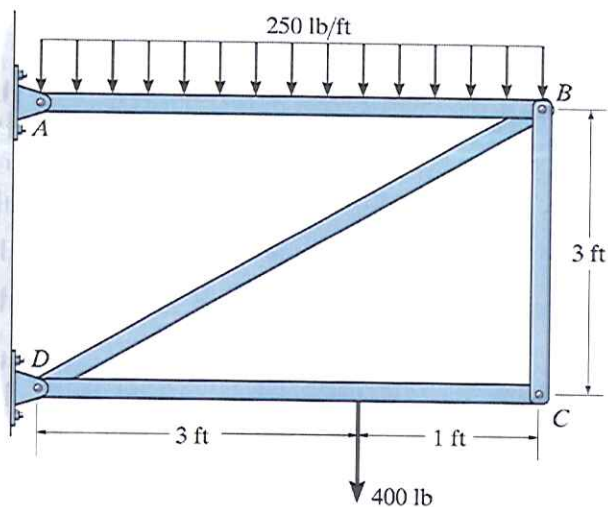
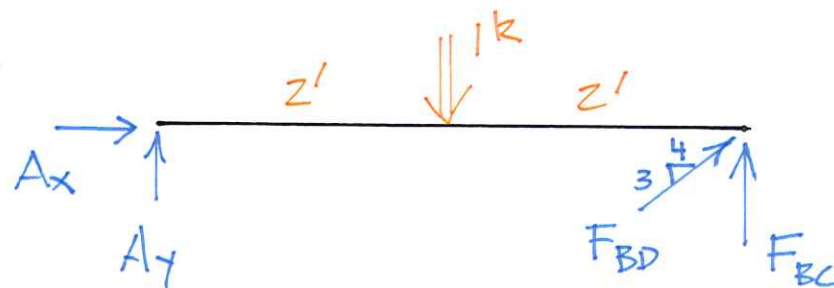


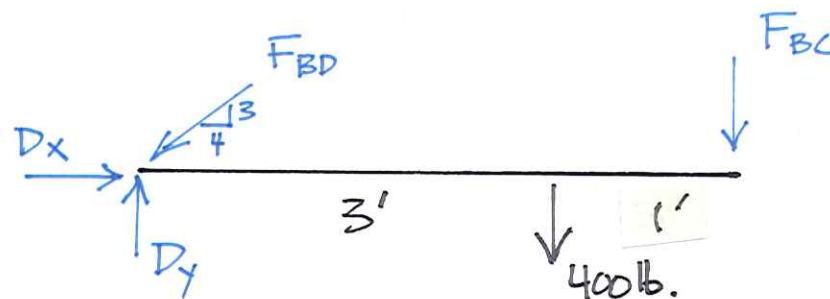
Problem 2-39: Find the reactions at A and D.



FBD AB



FBD CD



① FBD CD

$$\sum M_D = 0 = -400 \text{ lb} \cdot (3') - F_{BC} (4')$$

$$\underline{\underline{F_{BC} = -300 \text{ lb.}}}$$

③ FBD AB

$$+\uparrow \sum F_y = 0 = A_y + \frac{3}{5} F_{BD} + F_{BC} - 1 \text{ k}$$

$$\underline{\underline{A_y = 500 \text{ lb}}}$$

② FBD AB

$$\sum M_A = 0 = -1 \text{ k} (z') + \frac{3}{5} F_{BD} (4') + F_{BC} (4')$$

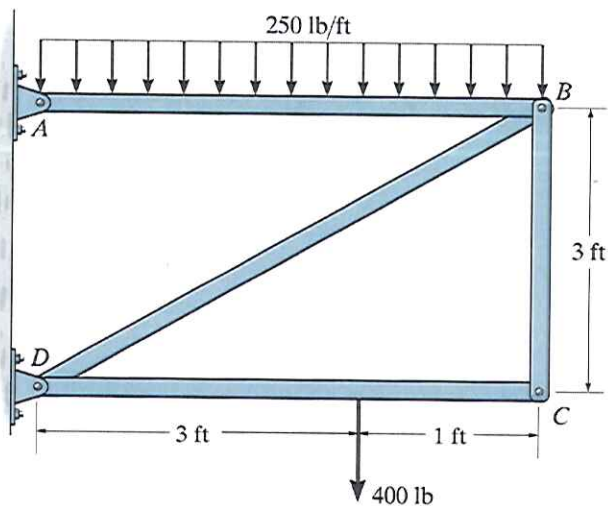
$$\underline{\underline{F_{BD} = 1,333 \text{ lb.}}}$$

④ FBD AB

$$+\rightarrow \sum F_x = 0 = A_x + \frac{4}{5} F_{BD}$$

$$\underline{\underline{A_x = -1,067 \text{ lb.}}}$$

Problem 2-39: Find the reactions at A and D.



⑤ FBD CD

$$+\uparrow \sum F_y = 0 = D_y - \frac{3}{5} F_{BD} - F_{BC} - 400 \text{ lb.}$$

$$\underline{\underline{D_y = 900 \text{ lb.}}}$$

⑥ FBD CD

$$+\rightarrow \sum F_x = 0 = D_x - \frac{4}{5} F_{BD}$$

$$\underline{\underline{D_x = 1,067 \text{ lb.}}}$$