

$$\sum M_A = 0 \quad \text{kip-ft}$$

$$0 = -10k(9) - 15k(12) - 15k(24) + D_y(36)$$

$$D_y = \frac{630}{36}$$

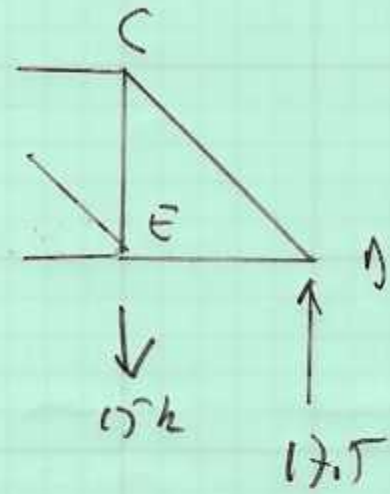
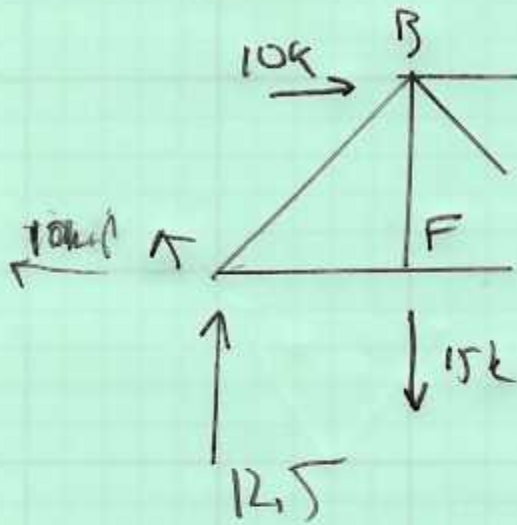
$$D_y = \frac{17.5 \text{ kips}}{17.5}$$

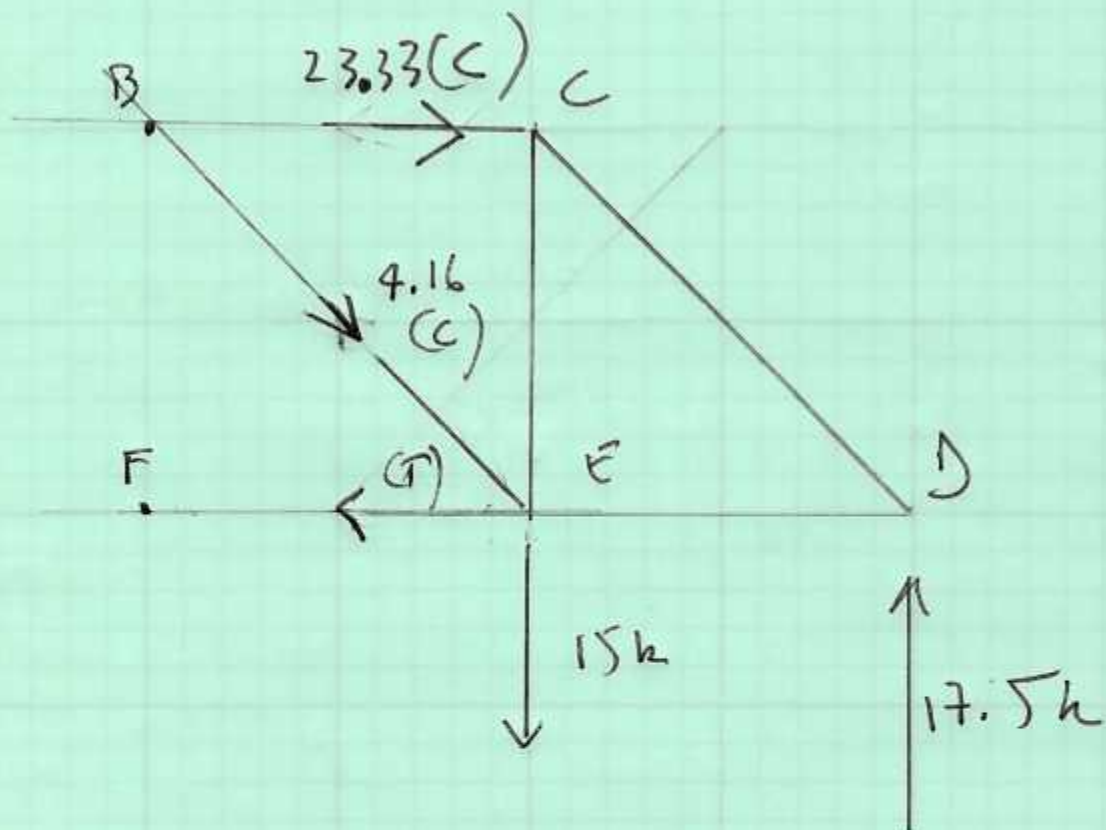
$$\sum M_D = 0 \quad \text{kip-ft}$$

$$0 = -A_y(36) - 10k(9) + 15(24) + 15(12)$$

$$A_y = \frac{450}{36}$$

$$A_y = \frac{12.5 \text{ kips}}{12.5}$$





$$\sum M_E = 0 \text{ kip}\cdot\text{ft}$$

$$\phi = +17.5(12) + ^+ CB(9)$$

$$CB = -210/9$$

$$CB = -23.33 \text{ kip} \quad (\text{corr})$$

$E_B:$

$$\Sigma f_y = 0$$

$$0 = +E_B \sin 36.9 - 15k + 17.5k$$

$$E_B = \frac{-2.5k}{\sin 36.9}$$

$$E_B = \underline{\underline{-4.16 \text{ (k)}}} \text{ (C)}$$

ANS

$E_F:$

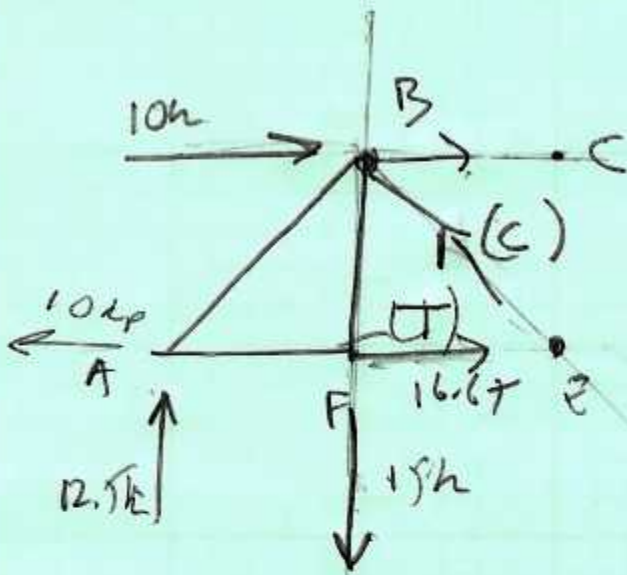
$$\Sigma f_x = 0$$

$$0 = -E_F + C_B + E_B \cos 36.9$$

$$0 = -E_F + 23.33k + 3.33k$$

$$0 = \underline{\underline{26.66k}} \text{ (T)}$$

ANS



$$\sum M_B = 0 \quad (\text{hrs-ke})$$

$$0 = -12.5(12) + F_E(9) + 10(9)$$

$$F_E = \underline{\underline{26.67 \text{ kN}}}$$

$$\sum F_y = 0 \quad (\text{kN})$$

$$0 = +12.5 - 15 - B_E \Rightarrow B_E = 36.9$$

$$B_E = \underline{\underline{-4.16 \text{ (comp)} \text{ (C)}}}$$

$$\sum F_x = 0$$

$$0 = 10 + BC - BE(\cos 36.9^\circ) + FE$$

$$0 = 10 + BC - 3.33 + 16.67$$

$$BC = \frac{23.33 \text{ kN}}{2.5}$$