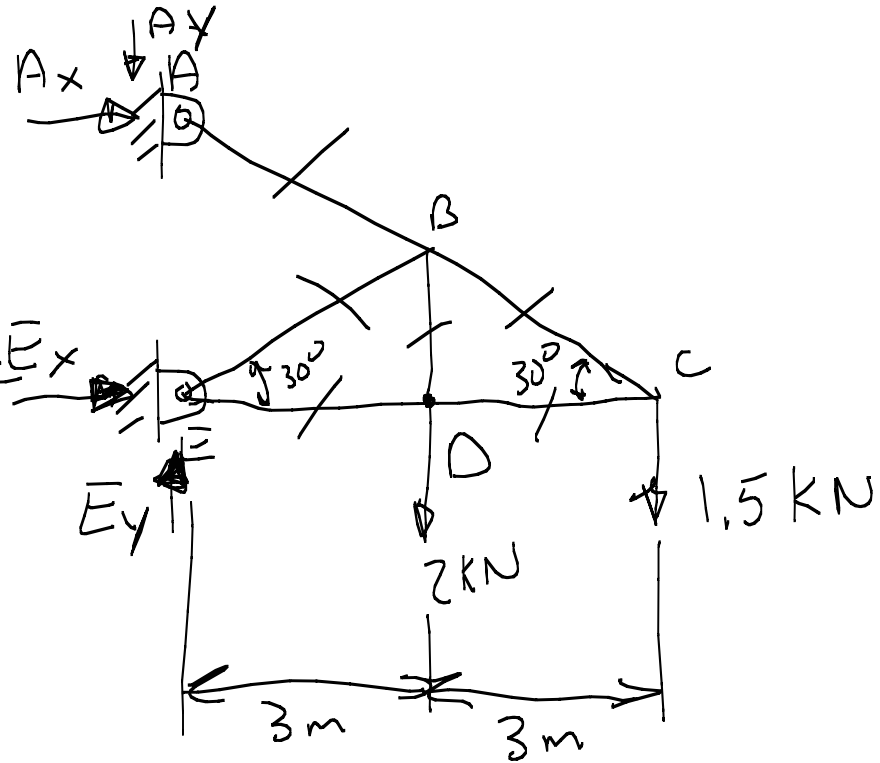
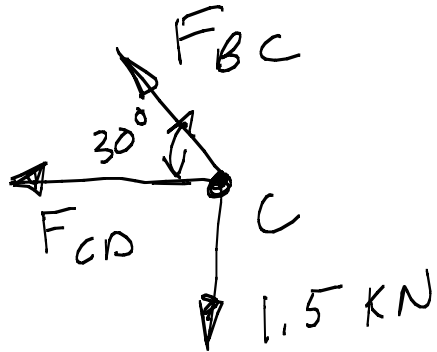


6.6

4 support reactions  
3 Equations  
Statically Indeterminate



Joint C



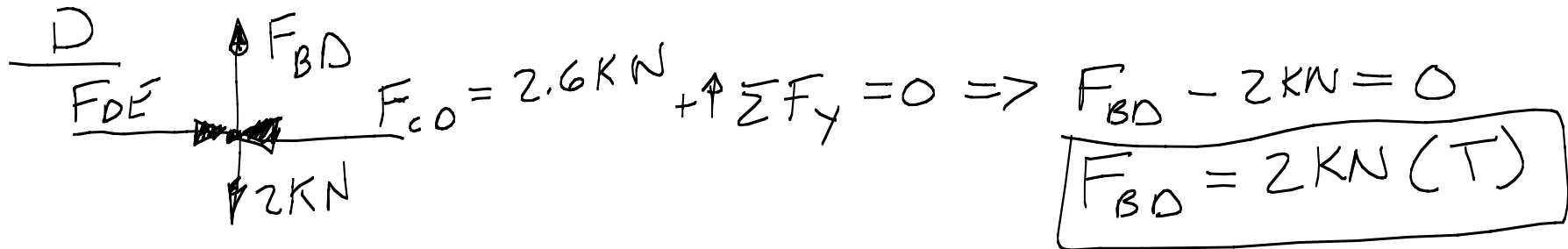
$$+\uparrow \sum F_y = 0 \Rightarrow F_{BC} \sin 30^\circ - 1.5 \text{ kN} = 0$$

$$F_{BC} = 3 \text{ kN (T)}$$

$$\rightarrow \sum F_x = 0 \Rightarrow -F_{CD} - F_{BC} \cos 30^\circ = 0$$

$$F_{CD} = -2.6 \text{ kN}$$

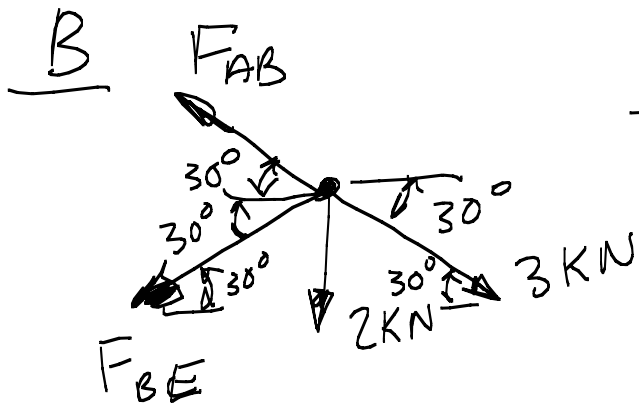
$$F_{CD} = 2.6 \text{ kN (C)}$$



$$F_{BD} = 2 \text{ kN (T)}$$

$\rightarrow \sum F_x = 0 \Rightarrow F_{DE} - 2.6 \text{ kN} = 0$

$$F_{DE} = 2.6 \text{ kN (C)}$$



$\rightarrow \sum F_x = 0 - F_{AB} (\cos 30^\circ) - F_{BE} \cos 30^\circ + (3 \text{ kN}) \cos 30^\circ = 0$

$$-F_{AB} - F_{BE} + 3 = 0$$

$+\uparrow \sum F_y = 0 \cdot F_{AB} \sin 30^\circ - F_{BE} \sin 30^\circ - 3 \text{ kN} (\sin 30^\circ) - 2 \text{ kN} = 0$

$$F_{AB} = 5 \text{ kN (T)}$$

$F_{BE} = -2 \text{ kN}$   
 $F_{BE} = 2 \text{ kN (C)}$

