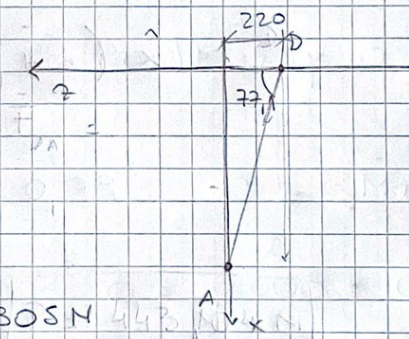
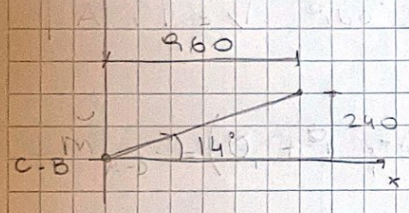
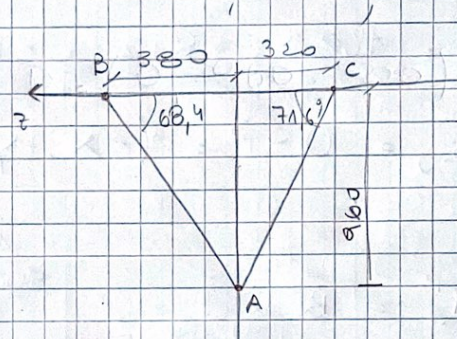
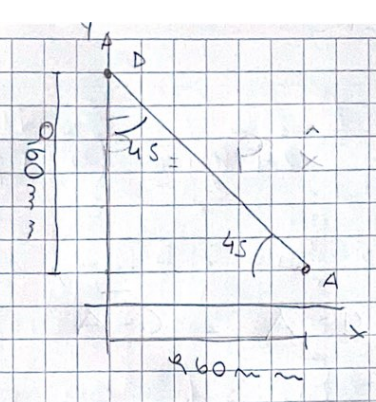
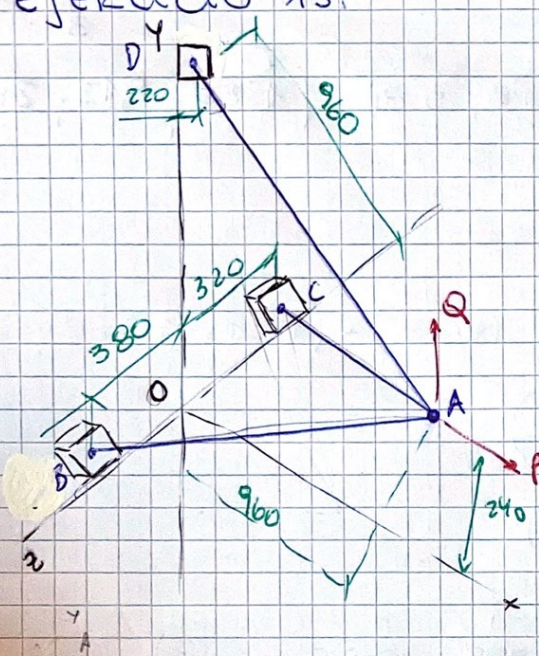


EJERCICIO 15:



$$\vec{P} = P \hat{x}$$

$$|\vec{F}_{AD}| = 305 \text{ N}$$

$$\vec{F}_{AD} = (-\sin 77,1 F_{AD}) \hat{x} + (-\cos 45 F_{AD}) \hat{y} - (\cos 77,1 F_{AD}) \hat{z}$$

$$\vec{F}_{A-B} = (-\sin 68,4 F_{AB}) \hat{x} - (\sin 14 F_{AB}) \hat{y} + (\cos 68,4 F_{AB}) \hat{z}$$

$$\vec{F}_{A-C} = (-\sin 71,6 F_{AC}) \hat{x} + (\sin 14 F_{AC}) \hat{y} - (\cos 71,6 F_{AC}) \hat{z}$$

$$\vec{F}_{AD} = -297,3 \text{ N } \hat{x} + 215,7 \text{ N } \hat{y} - 68,1 \text{ N } \hat{z}$$

$$\sum F = 0 \begin{cases} (x) -297,3 \text{ N} + P - \sin 71,6 F_{AC} - \sin 68,4 F_{AB} = 0 & (1) \\ (y) + 215,7 \text{ N} - \sin 14 F_{AB} - \sin 14 F_{AC} = 0 & (2) \\ (z) -68,1 \text{ N} + \cos 68,4 F_{AB} - \cos 71,6 F_{AC} = 0 & (3) \end{cases}$$

$$\textcircled{2} + 215,7 \text{ N} + F_{AB} - F_{AC} = 0$$

$$F_{AB} = 891,6 \text{ N} - F_{AC}$$

\textcircled{2} et \textcircled{3}

$$-68,1 \text{ N} + 328,2 \text{ N} + 0,368 F_{AC} - 0,316 F_{AC} = 0$$

$$0,052 F_{AC} = 260,1 \text{ N}$$

$$F_{AC} = 380,3 \text{ N}$$

$$F_{AB} = 891,6 \text{ N} - 380,3 \text{ N}$$

$$F_{AB} = 511,3 \text{ N}$$

$$\textcircled{1} -297,3 \text{ N} + P + \text{sen } 71,6 F_{AC} - \text{sen } 68,4 F_{AB} = 0$$

$$P = 1133,6 \text{ N}$$