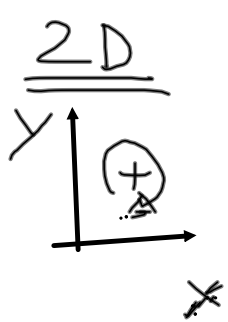


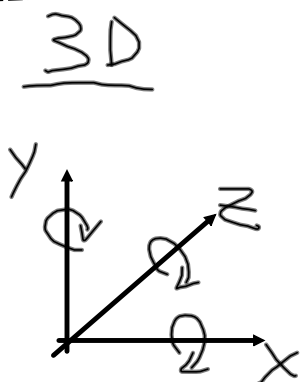
## EQUAZIONI CARDINALI DELLA STATICA

$$\begin{cases} \sum \vec{F} = 0 & \Rightarrow \text{NO TRASLAZIONI} \\ \sum \vec{M}_p = 0 & \Rightarrow \text{NO ROTAZIONI} \end{cases}$$

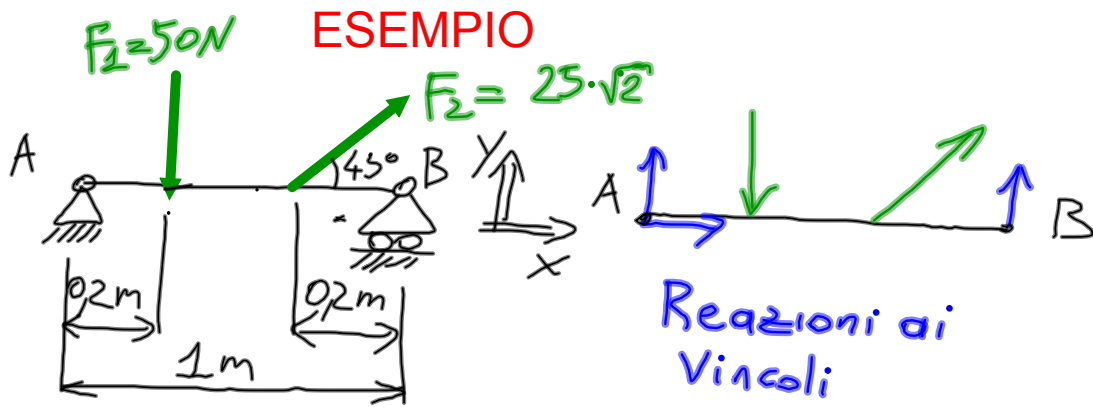
Condizione necessaria e sufficiente affinché un corpo sia in quiete (STATICA) è che la  $\sum \vec{F} = 0$  e che la  $\sum \vec{M}_p = 0$



$$\begin{cases} \sum \vec{F} = 0 \\ \sum \vec{M}_p = 0 \end{cases} \Rightarrow \begin{cases} \sum F_x = 0 \\ \sum F_y = 0 \\ \sum M_p = 0 \end{cases}$$



$$\begin{cases} \sum \vec{F} = 0 \\ \sum \vec{M}_p = 0 \end{cases} \Rightarrow \begin{cases} \sum F_x = 0 \\ \sum F_y = 0 \\ \sum F_z = 0 \\ \sum M_{(xy)_p} = 0 \\ \sum M_{(yz)_p} = 0 \\ \sum M_{(zx)_p} = 0 \end{cases}$$

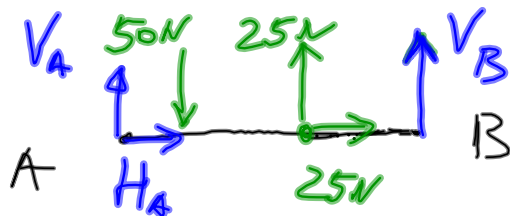


① EQ. CARD. STATICA

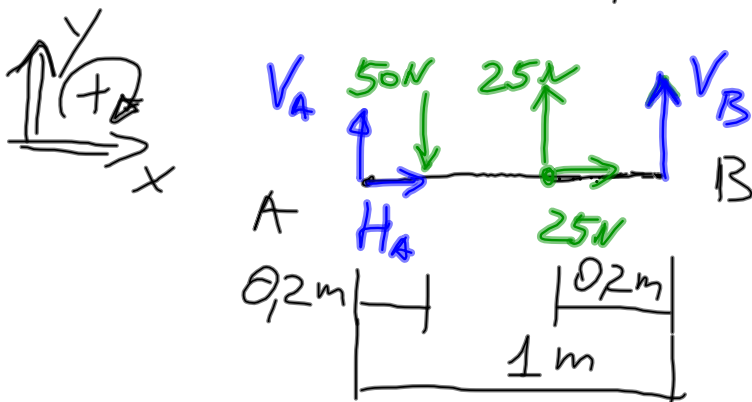
1.A) Ridisegnare il sistema trave con le forze esterne scomposte lungo le sue componenti



2.A) Riportare le reazioni ai vincoli

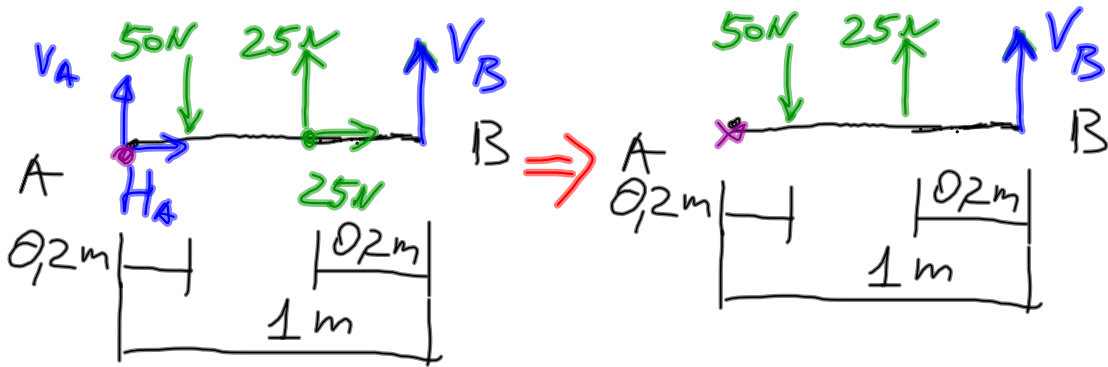


3. A) Applicare le eq. cardinali della statica



$$\left\{ \begin{array}{l} \sum F_x = 0 \\ \sum F_y = 0 \\ \sum M_p = 0 \end{array} \right. \Rightarrow \left\{ \begin{array}{l} H_A + 25 = 0 \\ V_A - 50 + 25 + V_B = 0 \\ \sum M_A = 0 \end{array} \right.$$

$$\sum M_A = 0$$



$$\sum M_A = 0 \quad \left( \begin{array}{c} \oplus \\ \ominus \end{array} \right) \quad 50 \cdot 0,2 - 25 \cdot 0,8 - V_B \cdot 1 = 0$$

$$\begin{cases} H_A + 25 = 0 \\ V_A - 50 + 25 + V_B = 0 \\ \sum M_A = 0 \end{cases} \Rightarrow \begin{cases} H_A + 25 = 0 \\ V_A - 50 + 25 + V_B = 0 \\ 50 \cdot 0,2 - 25 \cdot 0,8 - V_B \cdot 1 = 0 \end{cases}$$

$$V_B = -10 \text{ N}$$

$$H_A = -25 \text{ N}$$

$$V_A = 35 \text{ N}$$

