

Junta Cinemática



"Par cinemático"

→ Es la conexión entre 2 o mas estímulos (con sus nodos).

- Contacto de linea o de superficie

- Grados de libertad.

- Cierres físicos → Fuerza o por forma "hueso"

Símp

Límido

Nodos.

Estímulos

Nodos.

Estímulos

Nodos.

Estímulos

Nodos.

Estímulos

Nodos.

Estímulos

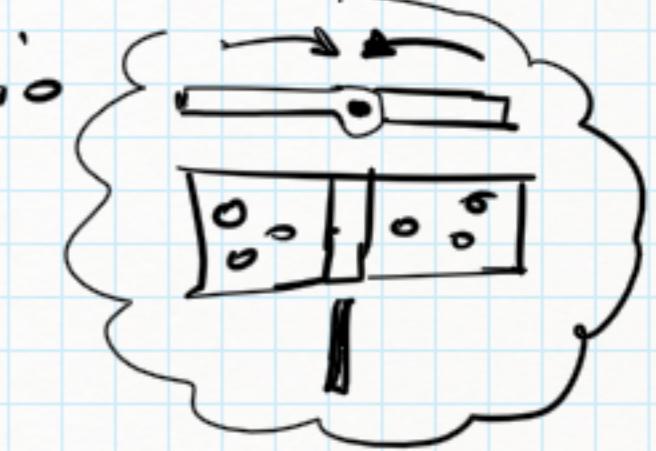
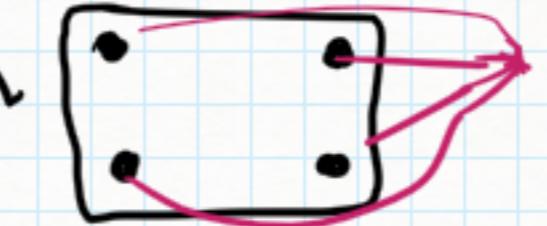
Nodos.

Binario



Binario → Ternario

Ternario.

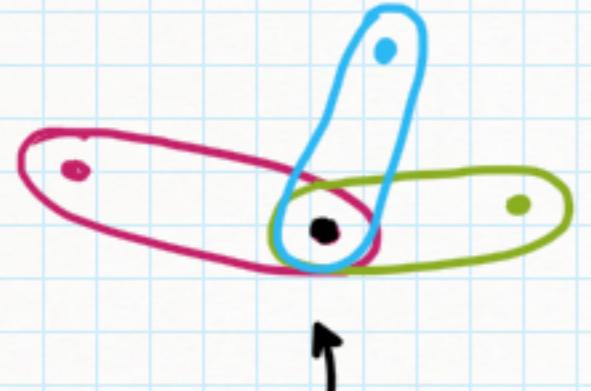


Tipos de movimiento.

- 1- Rotación Pura. $[\Delta\theta]$

2- Translación Pura. $[\Delta x]$

3- Movimiento Complejo $[\Delta\theta_x]$

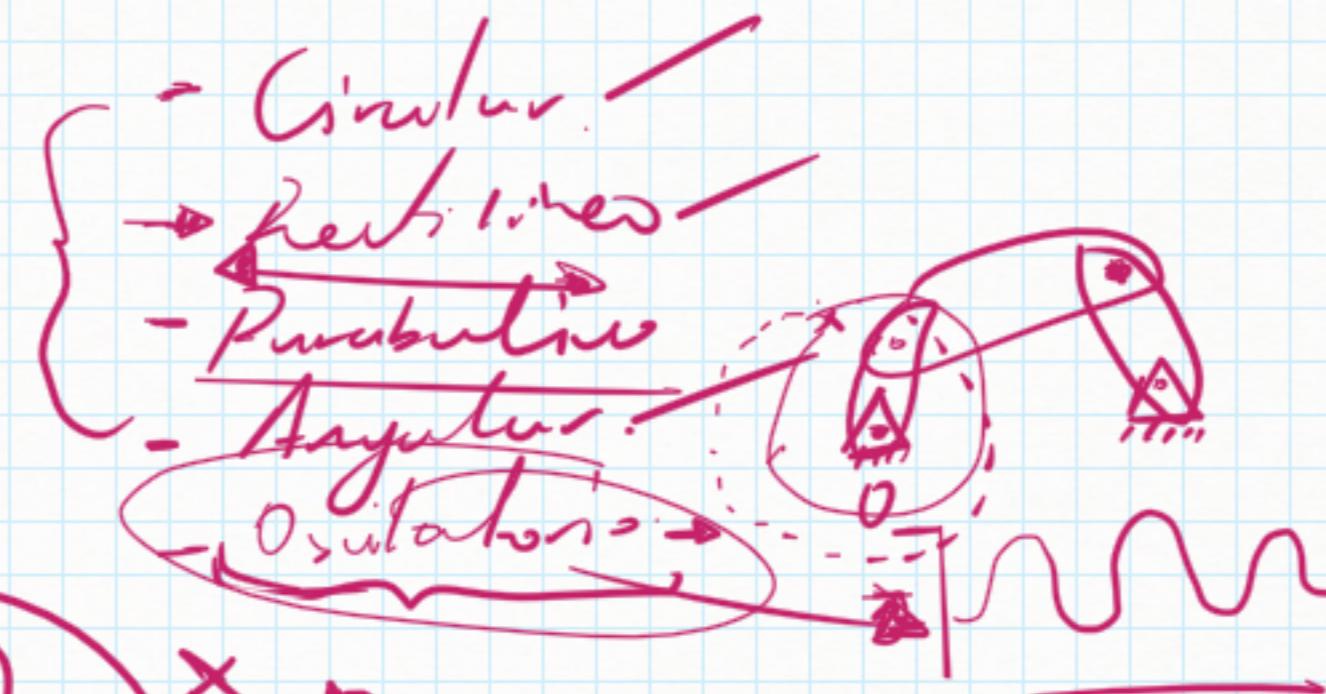


$$\begin{aligned} \theta_J &= 3 - 1 \\ &= 2. \end{aligned}$$

Orden de la Junta

$$\begin{aligned} \theta_J &: \# \text{ eslabones} - 1. \\ &= 2 - 1 \\ &= 1 \end{aligned}$$

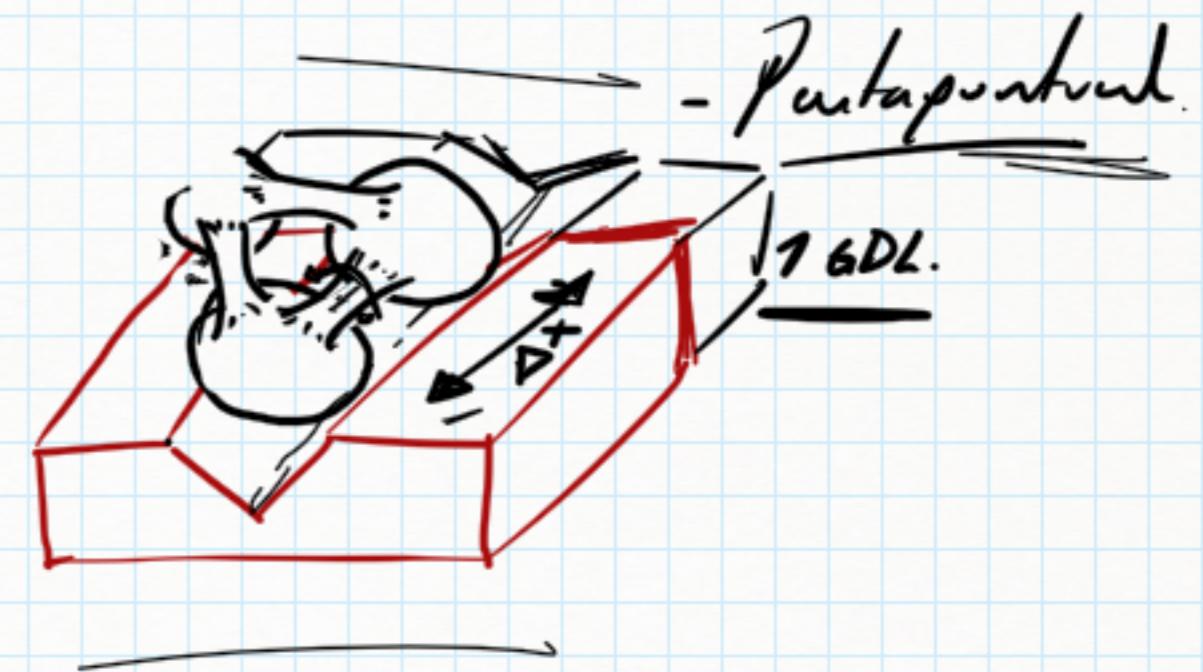
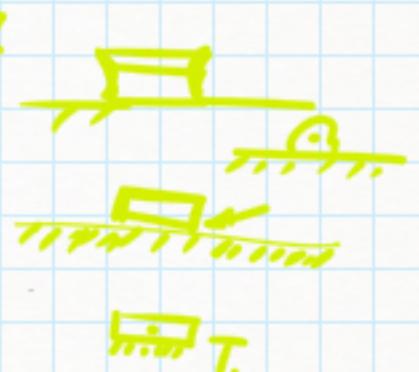
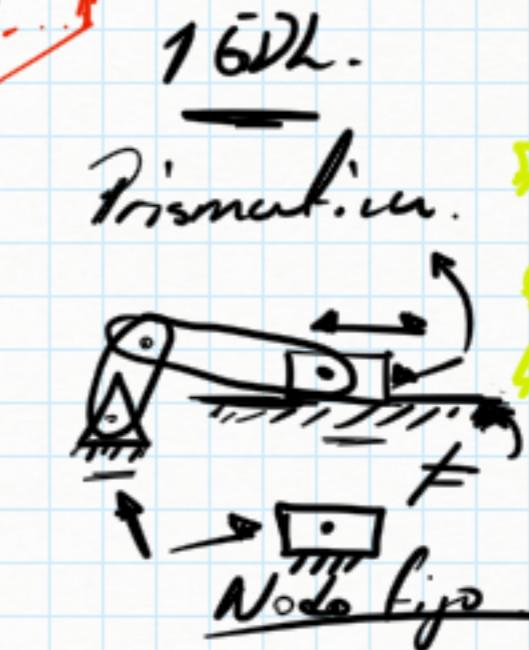
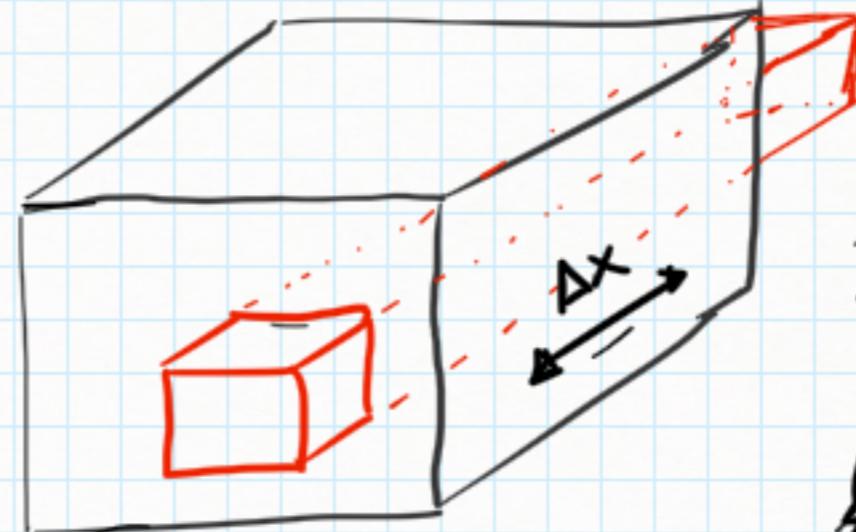
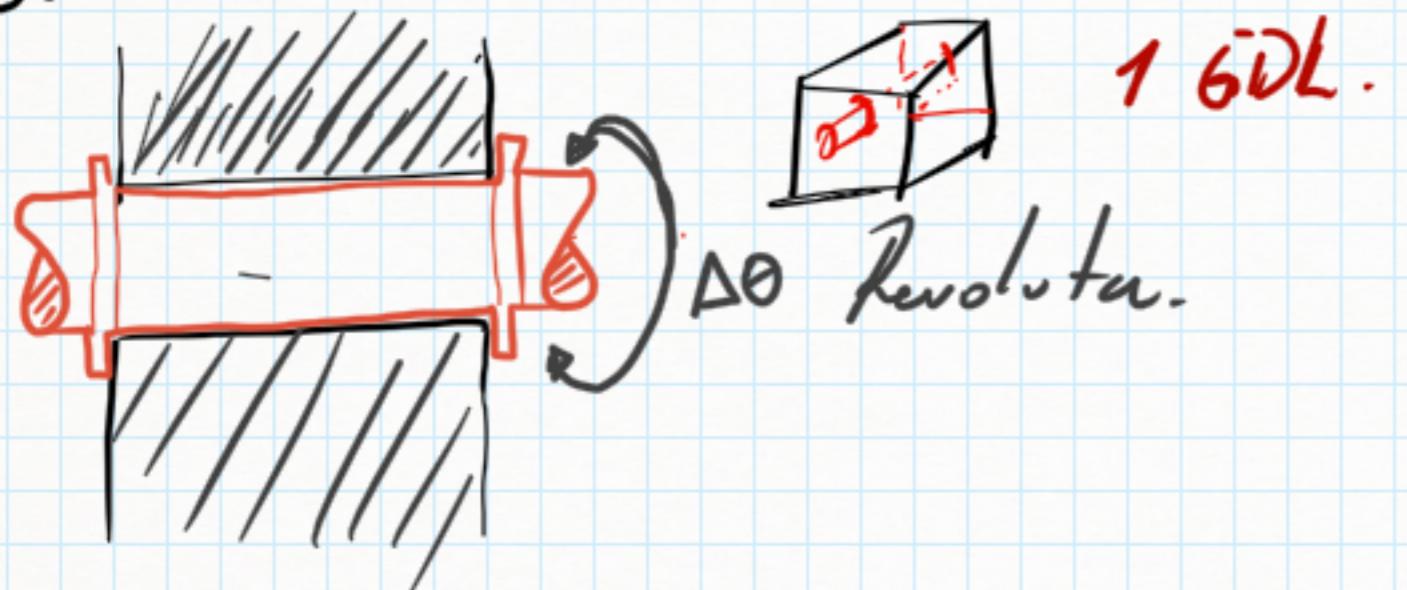
96°

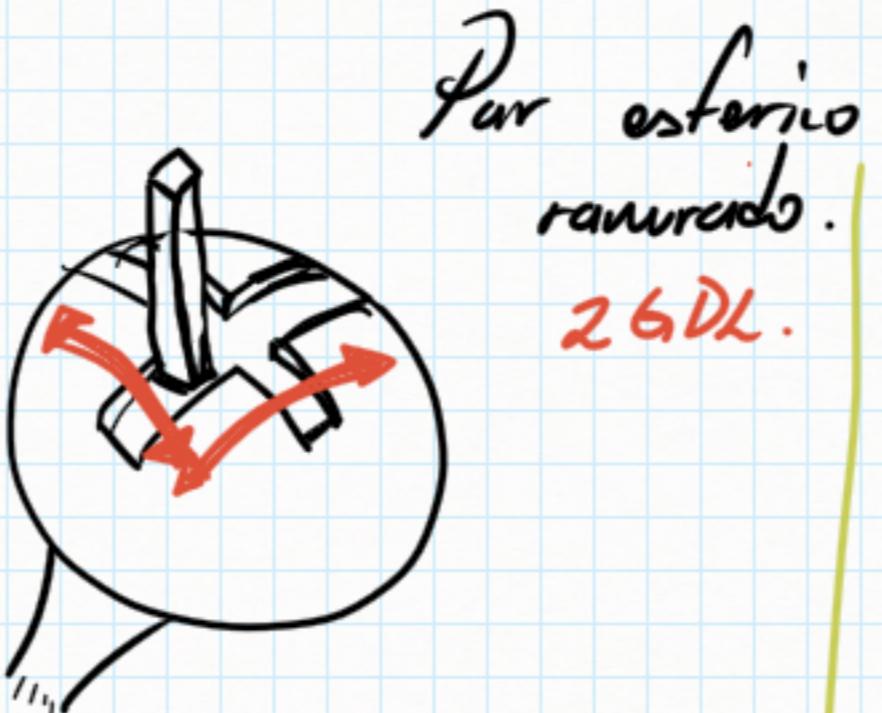
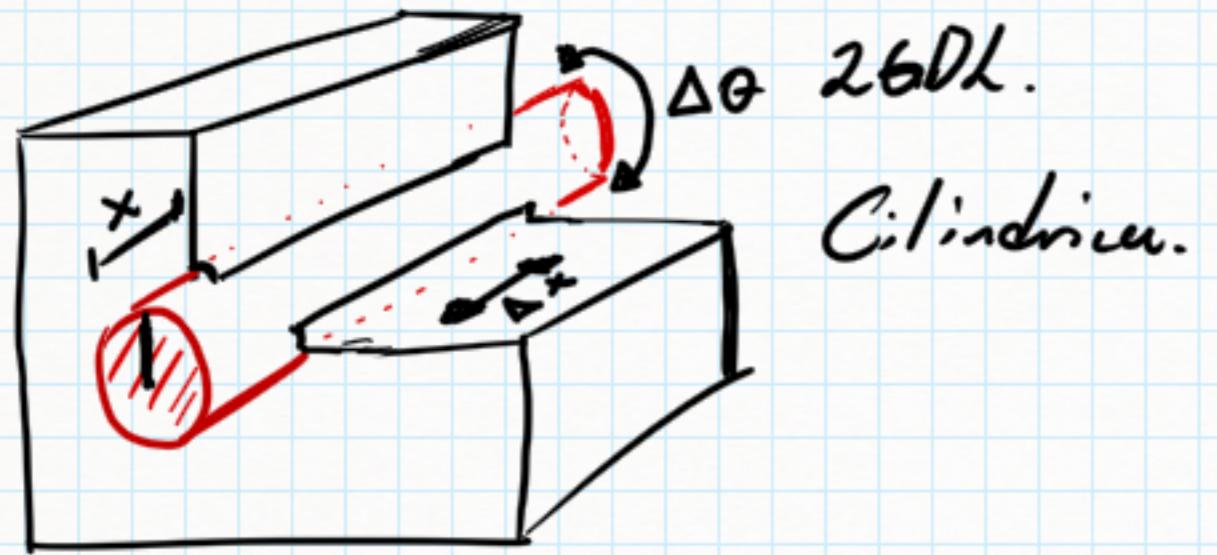


60° : Grados de libertad.

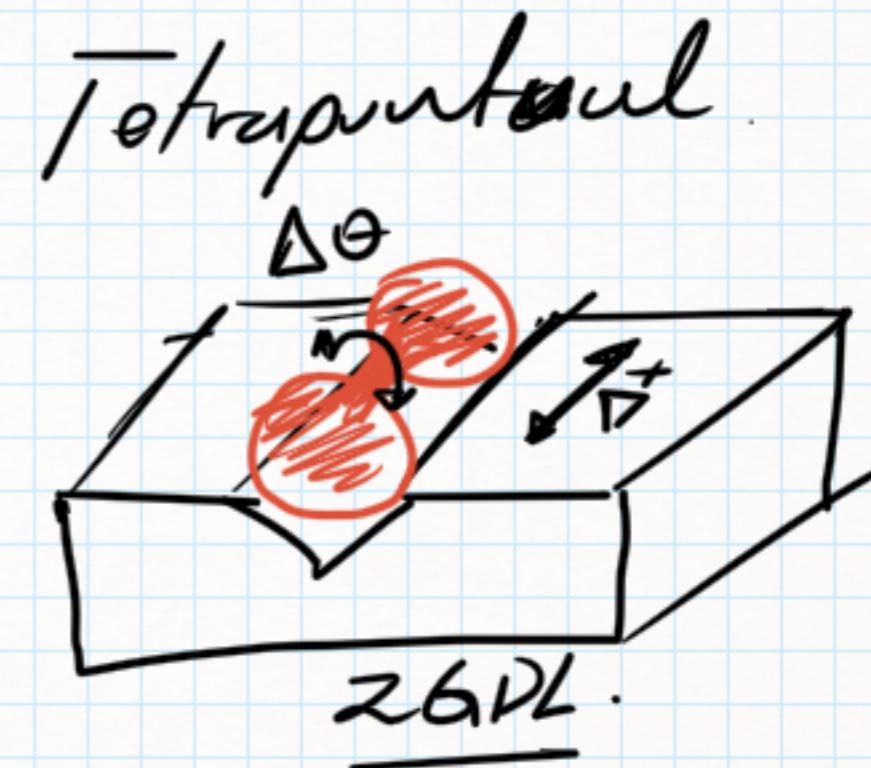
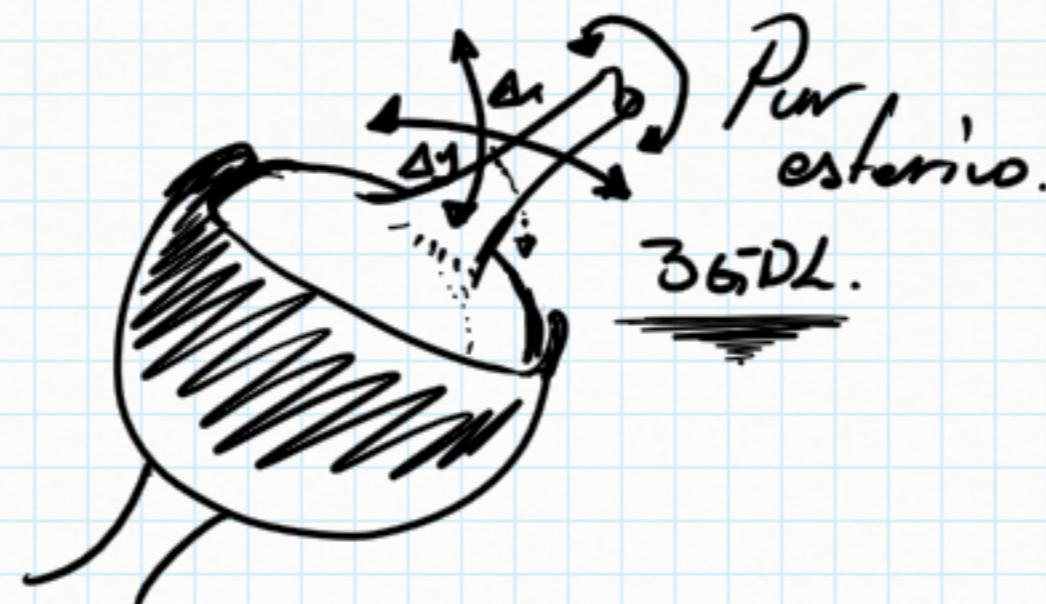
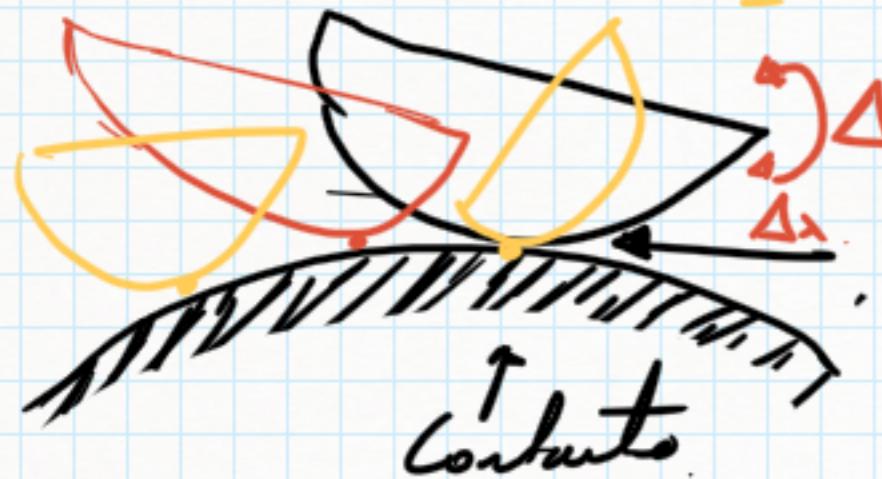
Es la capacidad de generar movimientos independientes teniendo como referencia el sistema de coordenadas.

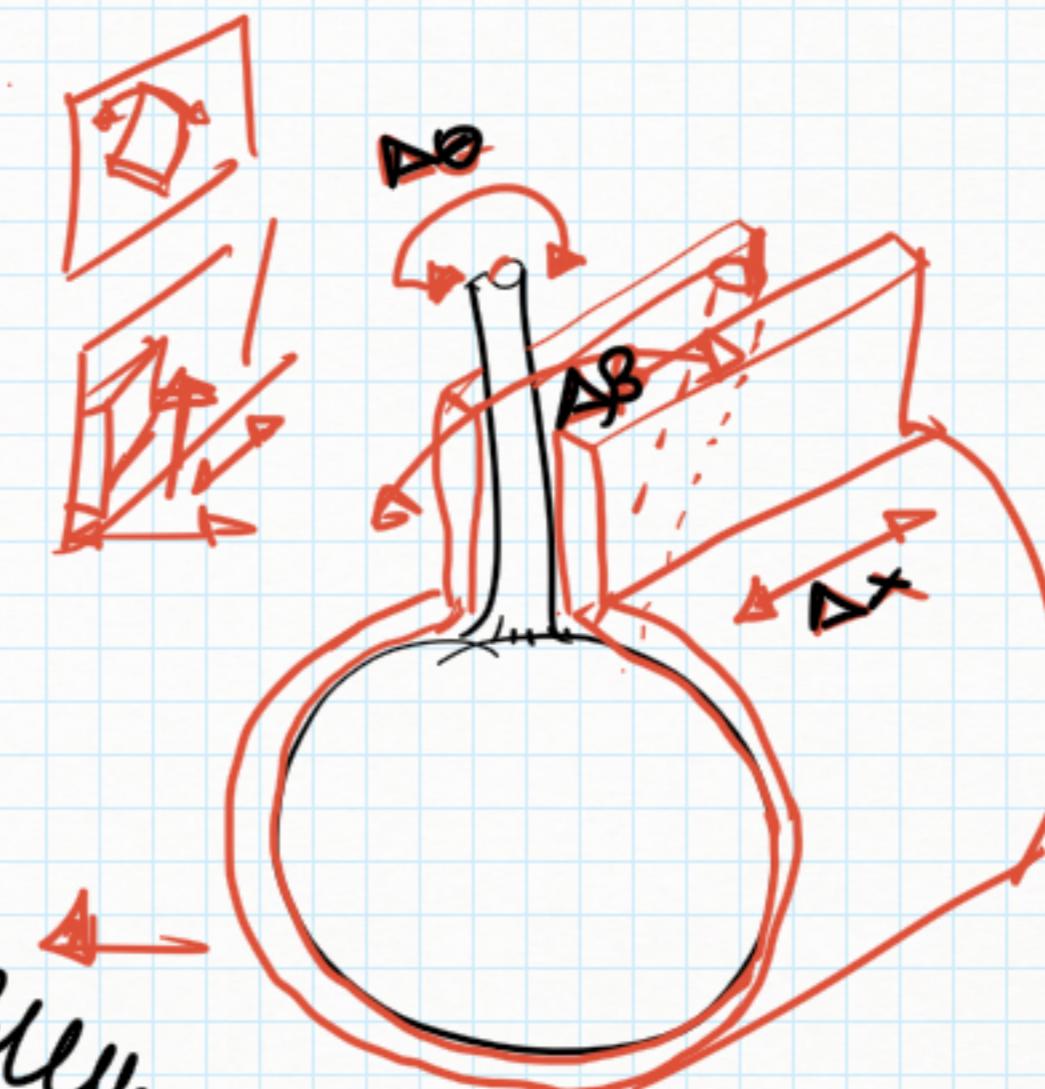
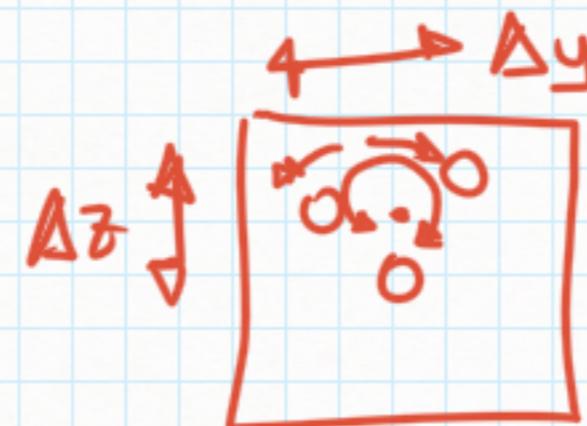
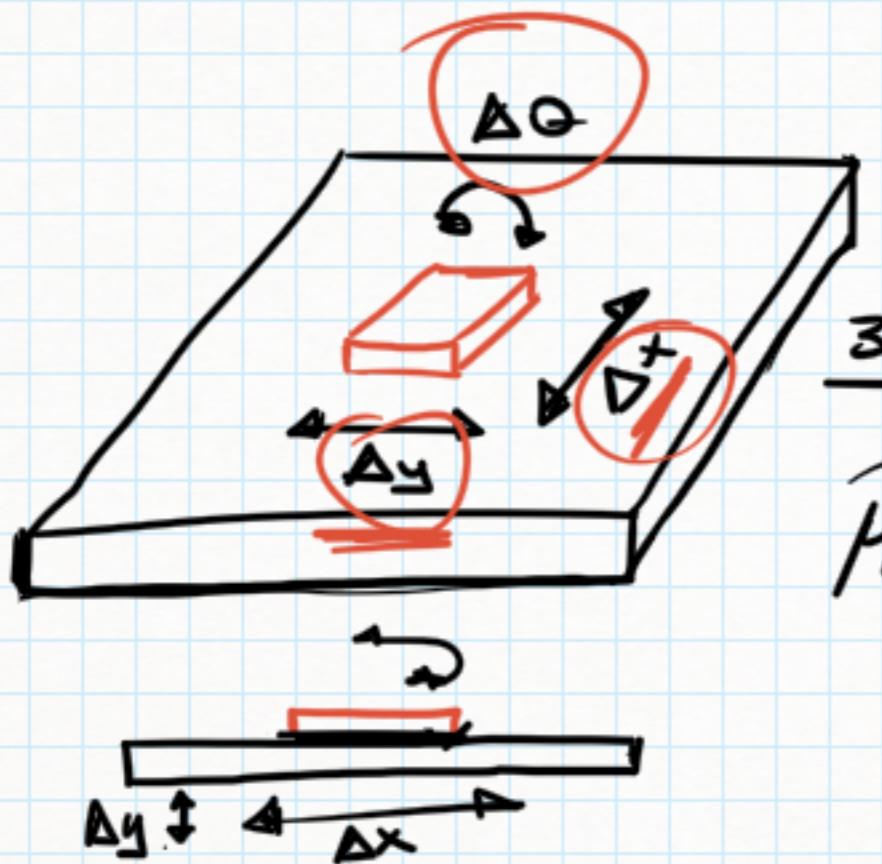
Juntas Cinemáticas. 360° Rotación





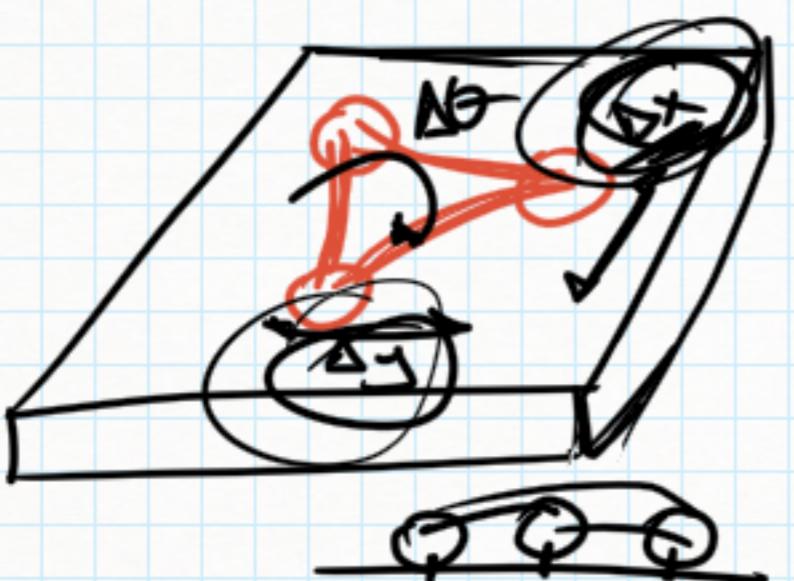
Par lateral
Semi-junta \Rightarrow 6DL > 1.
26DL.



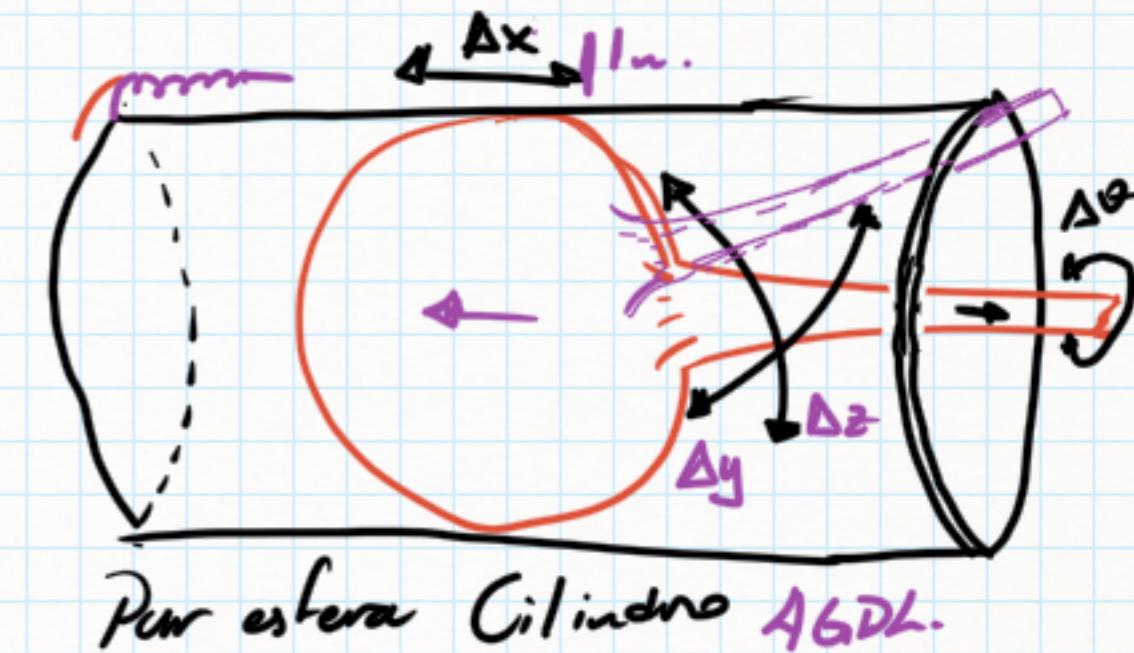
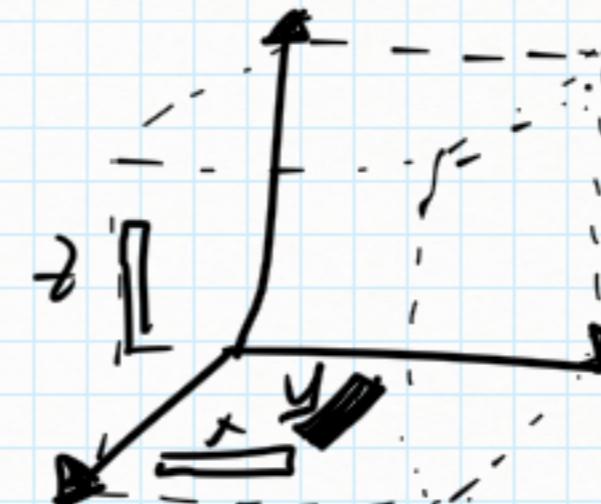


3 GDL.

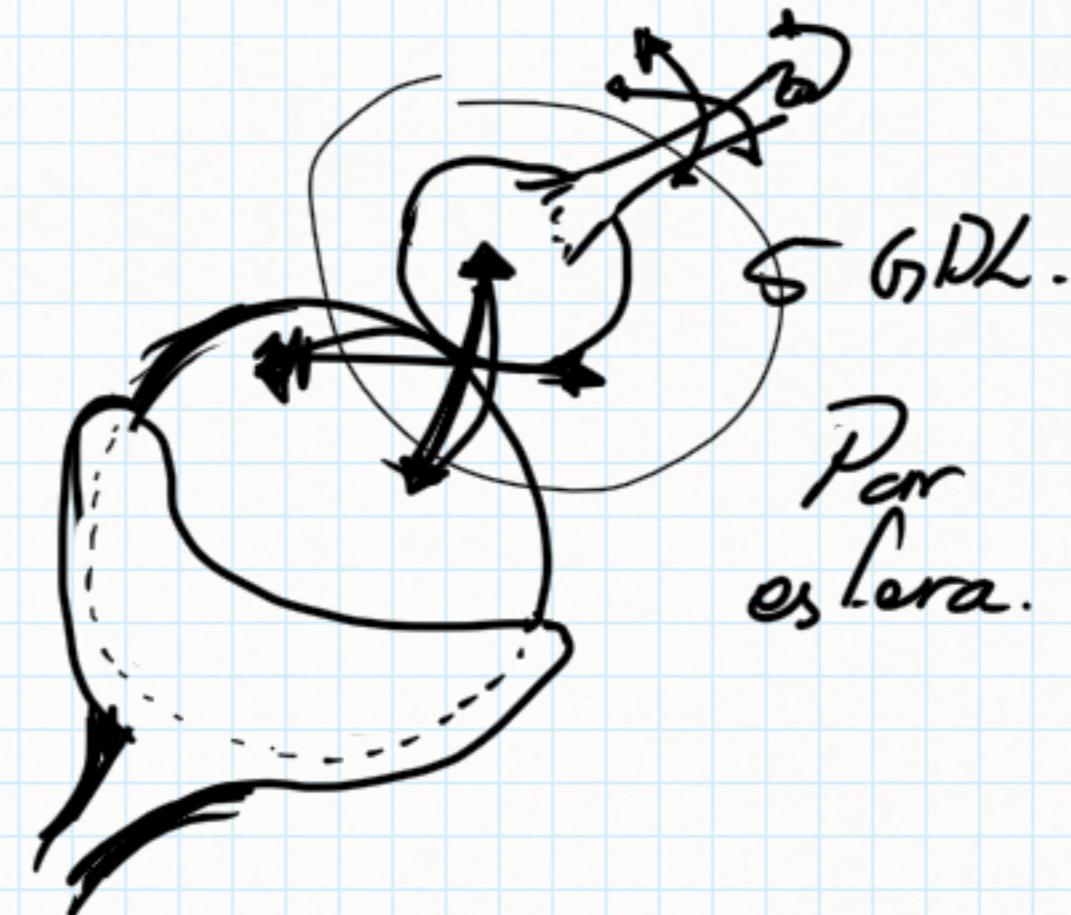
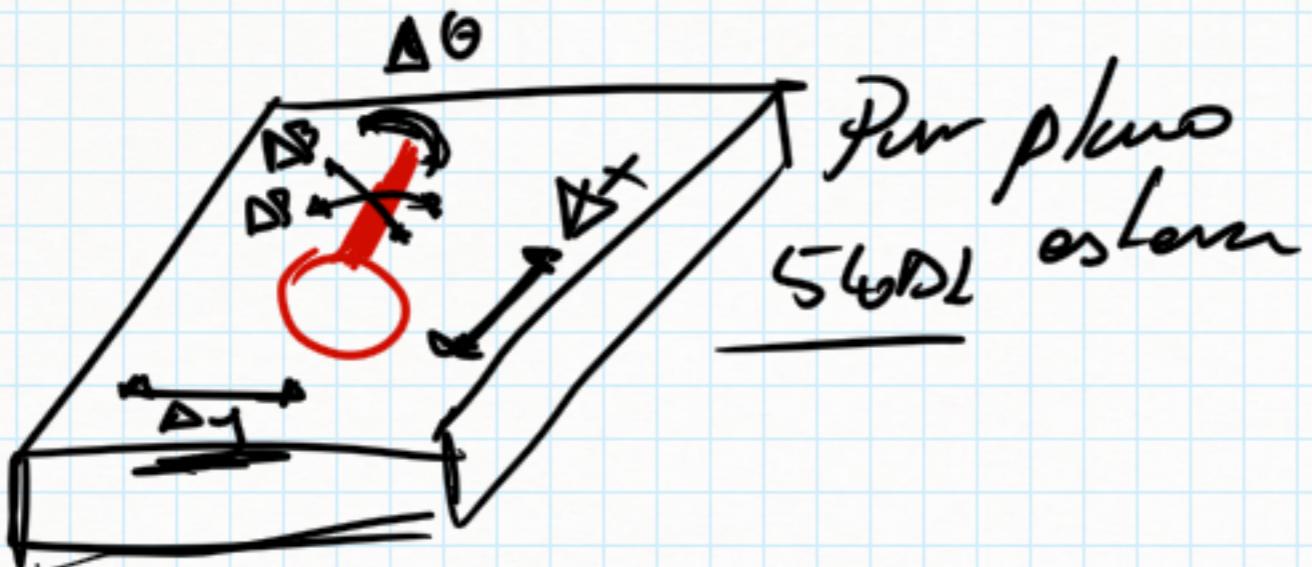
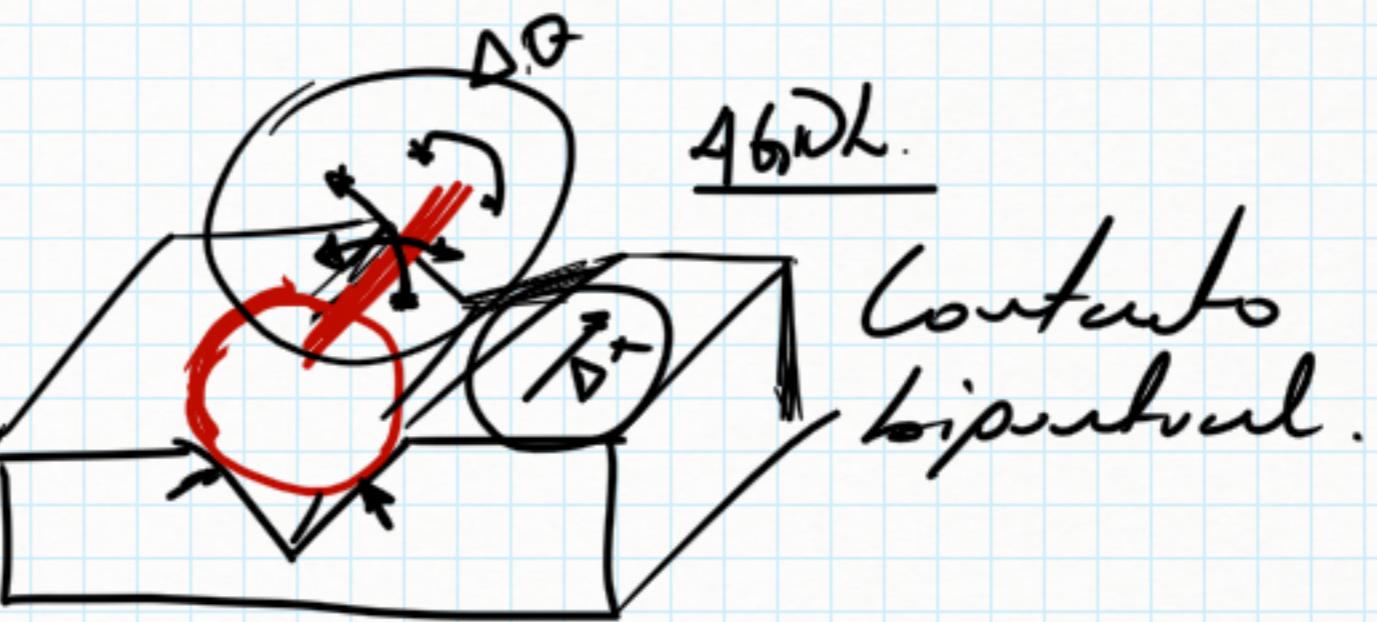
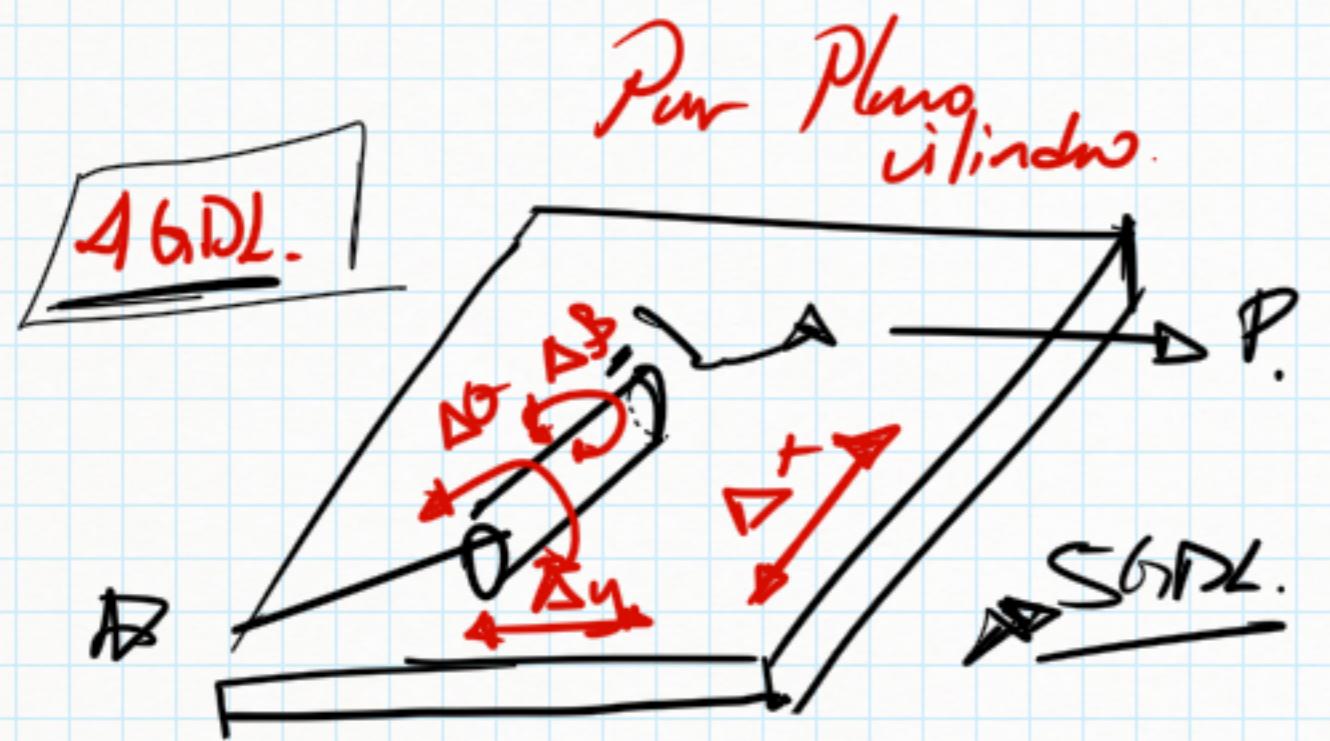
Por
C.I., indicio
Reservado.



Centrato
tripunto.
3 GDL.



Par estera Cilindro 4 GDL.



$$6DL \Rightarrow$$

$$\rightarrow GDL = 3L - 2J - 3G$$

L : es los lazos Juntas. J_{carr} .

$$= 3 \cdot 4 - 2 \cdot 4 - 3 \cdot 1$$

$$12 - 8 - 3$$

$$\underline{\underline{GDL}} = 1.$$

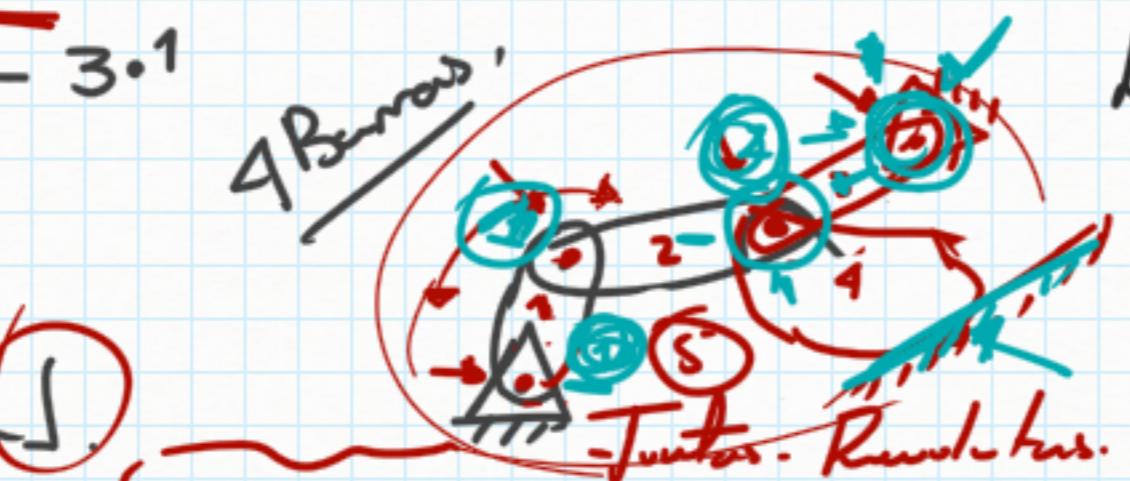
$$6 \text{ grados} = 3(L-1) - 2J$$

$$3(4-1) - 2 \cdot 4$$

$$= 12 - 8$$

\uparrow Juntas completas

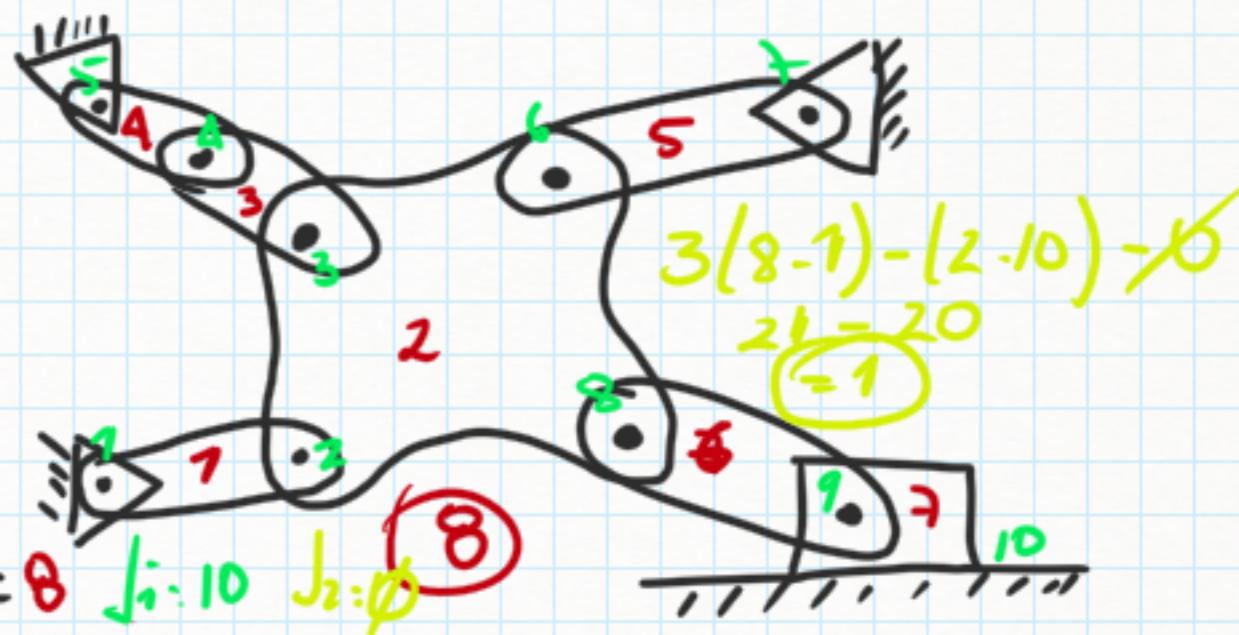
$J_{\text{carr}} > 1 \Rightarrow \underline{\text{Sujeta}}$



$$K_1 + 2J_{\text{carr}} = 3(L-1) - 2J_1 - J_2 \quad \text{2 Sujetas}$$

$$= 3(4-1) - 2 \cdot 1 - \emptyset$$

$$= 1$$



Juntas completas