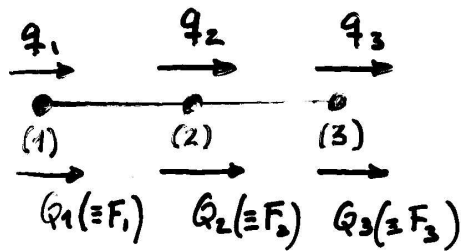


ELEMENTO DE BARRA → MATRIZ DE RIGIDEZ  
 (APROXIMACIÓN CUADRÁTICA)

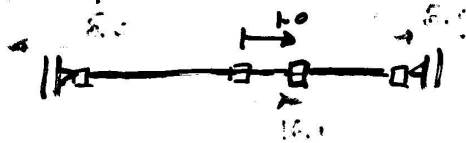


$$K^{(el)} = \frac{EA}{3L} \begin{bmatrix} 7 & -8 & 1 \\ -8 & 16 & -8 \\ 1 & -8 & 7 \end{bmatrix}$$

1ª columna ( $q_1=1.0; q_2=q_3=0$ )



2ª columna ( $q_2=1.0; q_1=q_3=0$ )



3ª columna ( $q_3=1.0; q_1=q_2=0$ )

