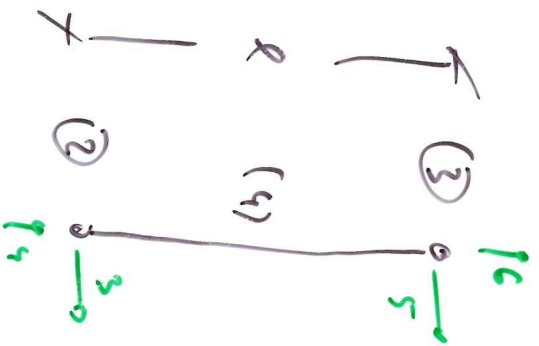


Element (3)

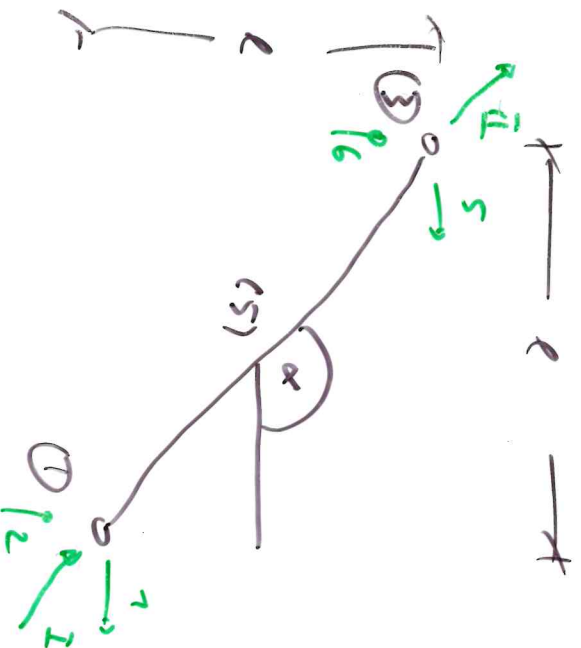


Displacement $\xi_{(3)} =$

$$\frac{v_6 - v_4}{l} = \frac{(-2-2\sqrt{2}) \frac{El}{EA} - (-2-2\sqrt{2}) \frac{El}{EA}}{l} = 0$$

Spanning $\delta_{(1)} = El \cdot \xi_{(4)} = 0$

Element (5)



$$c = \cos(\alpha) = -\frac{l}{\sqrt{2}l} = -\frac{1}{\sqrt{2}}$$

$$s = \sin(\alpha) = \frac{l}{\sqrt{2}l} = \frac{1}{\sqrt{2}}$$

$$\begin{bmatrix} v_1 \\ v_7 \end{bmatrix}$$

$$= \begin{bmatrix} c & s & . & . \\ . & . & c & s \end{bmatrix}$$

$$\underbrace{\quad}_{[T^T]}$$

$$\begin{bmatrix} v_1 & v_2 & v_3 & v_4 \\ v_7 & v_8 & v_9 & v_{10} \end{bmatrix}$$