

$$\begin{pmatrix} \delta_{11} & \dots & \delta_{1k} \\ \vdots & & \vdots \\ \delta_{k1} & \dots & \delta_{kk} \end{pmatrix} \begin{pmatrix} \delta_{11} & \dots & \delta_{1k} \\ \vdots & & \vdots \\ \delta_{k1} & \dots & \delta_{kk} \end{pmatrix} = \begin{pmatrix} \delta_{1k} & \dots & \delta_{11} \\ \vdots & & \vdots \\ \delta_{k1} & \dots & \delta_{kk} \end{pmatrix} \begin{pmatrix} \delta_{11} & \dots & \delta_{1k} \\ \vdots & & \vdots \\ \delta_{k1} & \dots & \delta_{kk} \end{pmatrix}$$

$$\Rightarrow \delta_{kk} \begin{pmatrix} \delta_{11} & \dots & \delta_{1k} \\ \vdots & & \vdots \\ \delta_{k1} & \dots & \delta_{kk} \end{pmatrix}$$

$$\delta_{11} \times (\delta_{11} \times \delta_{11}) = \delta_{11} (\delta_{11} \cdot \delta_{11}) - \delta_{11} (\delta_{11} \cdot \delta_{11})$$

$$\delta_{11} \times \left[\delta_{11} \times (\delta_{11} \times \delta_{1k}) + \right.$$

$$\left. \delta_{kk} (\delta_{11} \times \delta_{11}) \right] +$$

$$\delta_{kk} \times (\delta_{11} \times \delta_{1k}) + \delta_{kk} (\delta_{11} \times \delta_{1k})$$

$$\delta_{kk} (\delta_{1k} \cdot \delta_{1k}) - \delta_{kk} (\delta_{1k} \cdot \delta_{1k})$$

$$\Rightarrow \delta_{ij} + \underbrace{(\delta_{11} \times \delta_{1k}) \cdot (\delta_{1k} \times \delta_{11})}_{\delta_{ij} \text{ plane}} + \underbrace{(\delta_{1k} \times \delta_{11}) \cdot (\delta_{11} \times \delta_{1k})}_{\delta_{ij} \text{ plane}}$$

$$\Rightarrow \delta_{ij}$$