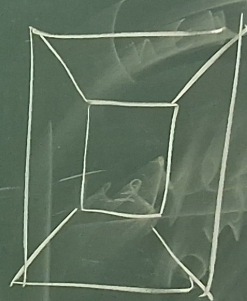
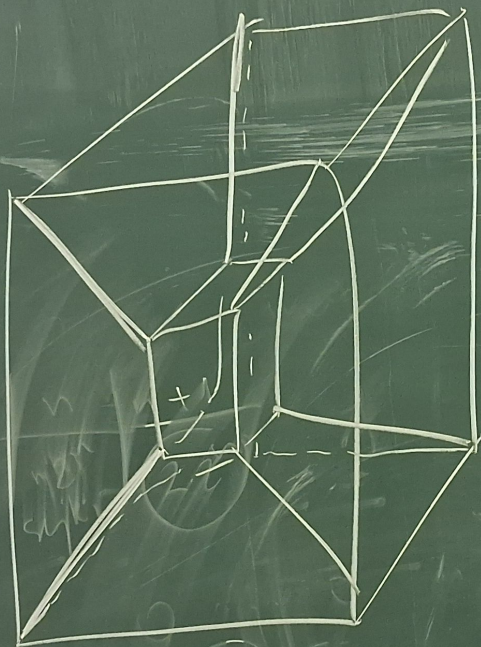
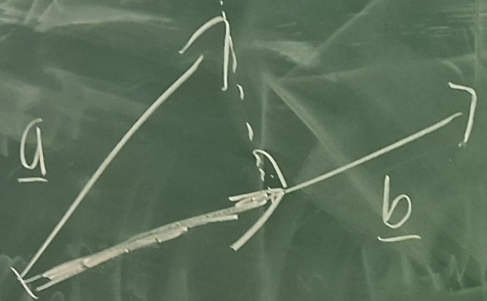


$$\Theta_1 = (a, b) \times$$

$$\Theta_2 = (b, c) \times$$



$\theta = (1, 2, 3)$



$\text{proj}_b \underline{a}$

$$\underline{a} \times \underline{b} = \begin{pmatrix} a_1 \\ a_2 \\ a_3 \end{pmatrix} \times \begin{pmatrix} b_1 \\ b_2 \\ b_3 \end{pmatrix} = \begin{pmatrix} a_2 b_3 - a_3 b_2 \\ a_3 b_1 - a_1 b_3 \\ a_1 b_2 - a_2 b_1 \end{pmatrix}$$

Kronecker δ

$$\delta_{ij} = \begin{cases} 0, & i \neq j \\ 1, & i = j \end{cases}$$

Levi-Civita symbol

$$\epsilon_{ijk} = \begin{cases} 1, & (i,j,k) \in \{(1,2,3), (2,3,1), (3,1,2)\} \\ -1, & (i,j,k) \in \{(3,2,1), (2,1,3), (1,3,2)\} \\ 0, & i=j, i=k, \text{ or } j=k \end{cases}$$

$$= \sum_{n=1}^3 \sum_{m=1}^3 \epsilon_{ijn} a_m b_m$$