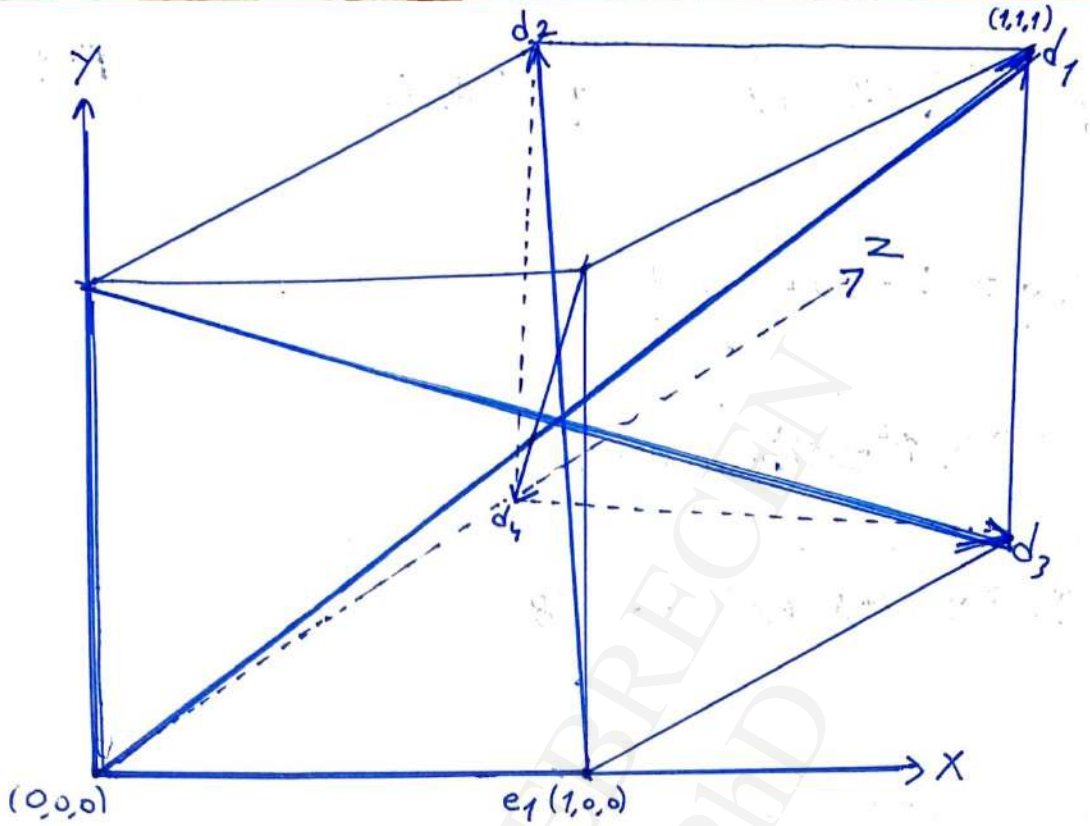
6)

$p \cdot q = |p| \cdot |q| \cdot \cos\theta$



$d_1 = (0,0,0) \longrightarrow (1,1,1) = (1,1,1)$ $\quad |d_1| = \sqrt{1^2+1^2+1^2} = \sqrt{3}$

$d_2 = (1,0,0) \longrightarrow (0,1,1) = (-1,1,1)$ $\quad |d_2| = \sqrt{(-1)^2+1^2+1^2} = \sqrt{3}$

$d_3 = (0,1,0) \longrightarrow (1,0,1) = (1,-1,1)$ $\quad |d_3| = \sqrt{1^2+(-1)^2+1^2} = \sqrt{3}$

$d_4 = (1,1,0) \longrightarrow (0,0,1) = (-1,-1,1)$ $\quad |d_4| = \sqrt{(-1)^2+(-1)^2+1^2} = \sqrt{3}$

$e_1 = (0,0,0) \longrightarrow (1,0,0) = (1,0,0)$ $\quad |e_1| = \sqrt{1^2+0^2+0^2} = \sqrt{1}$

$d_1 \cdot d_2 = |d_1| \cdot |d_2| \cdot \cos\theta$

$-1+1+1 = \sqrt{3} \cdot \sqrt{3} \cdot \cos\theta$

$1 = 3 \cdot \cos\theta$

$\frac{1}{3} = \cos\theta \longrightarrow \arccos$

$70,52° = \theta$

$d_1 \cdot e_1 = |d_1| \cdot |e_1| \cdot \cos\theta$

$1+0+0 = \sqrt{3} \cdot \sqrt{1} \cdot \cos\theta$

$1 = \sqrt{3} \cdot \cos\theta$

$\frac{1}{\sqrt{3}} = \cos\theta \longrightarrow \arccos$

$54,73° = \theta$