Name: Mosab Mohamed

group: B20-04 Variant: 4

P1. find the distance between the point (1,1,-1) and the intersection of planes $x+y+z=1$ and $2x-y-5z=1$

answer: $\vec{n_1}=(1,1,1)$ $\vec{n_2}=(2,-1,-5)$

$$\vec{v}=\vec{n_1}\times\vec{n_2}=(-4,7,-3)$$

$$d=\sqrt{(x_1-x_0)^2+(y_1-y_0)^2+(z_1-z_0)^2}$$

$$=\sqrt{(-4-1)^2+(7-1)^2+(-3-(-1))^2}$$

$$=\sqrt{25+36+4}$$

$$=\sqrt{65}$$