

$$A = (0/m, 0/n)$$

$$B = (0/n, 0/l)$$

$$C = (p/l) \cdot p/m, p/n$$

I think the coordinates A, B, C form a triangle as the base of the tetrahedron

$$AB = [-0/m, 0/n]$$

$$AC = [0, 0p/m, -0p/n]$$

the area of base is given by the length of the cross product:  $AB \times AC$

the problem is how to find the height of tetrahedron  
 $P: lx + my + nz = p$

$l, m, n$  are DCS of normal vector of plane

$P$ : distance of plane from origin

$$\sqrt{l^2 + m^2 + n^2} = 1$$

$$l^2 + m^2 + n^2 = 1$$