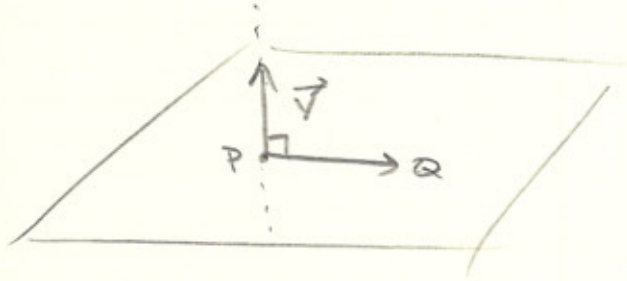
$\vec{v}$ is perpendicular to the plane
point P is on the plane
Q is all the point on the plane.

$Q(x, y, z)$
$P(x_0, y_0, z_0)$
$v\langle a, b, c\rangle$



$$\overrightarrow{PQ} = \langle x - x_0, y - y_0, z - z_0 \rangle$$

$$\overrightarrow{PQ} \cdot \vec{v} = 0$$

$$\boxed{a(x - x_0) + b(y - y_0) + c(z - z_0) = 0}$$