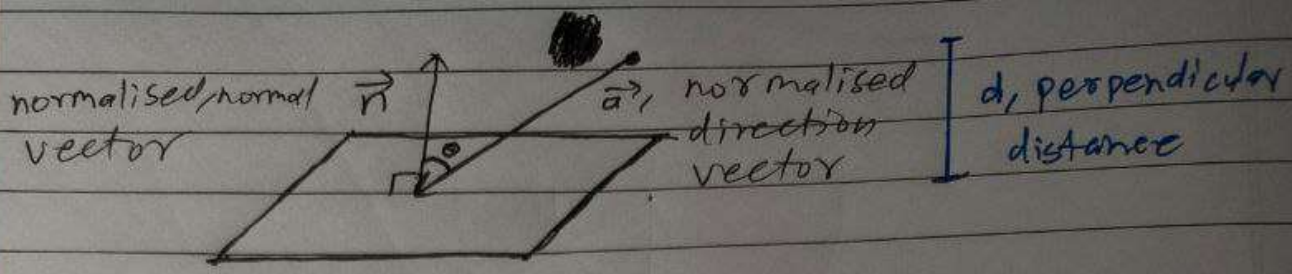


→ $\cos(\theta) = (-\vec{a}) \cdot \vec{n}$

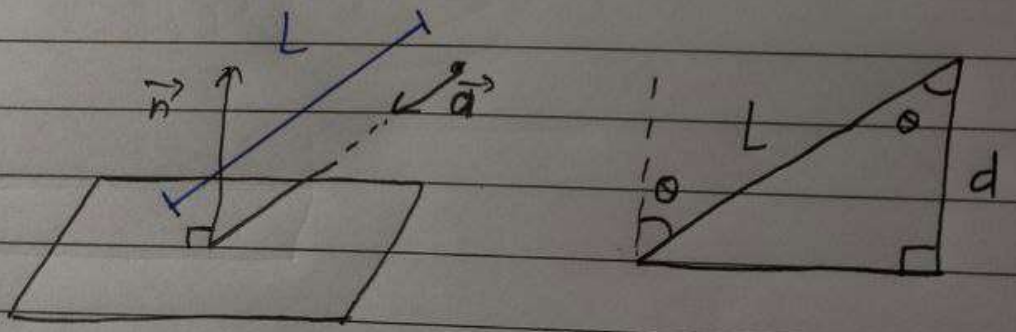
→ if $0 < \cos(\theta) \leq 1$ normal needs to point towards the camera, not away

→ Plane is of form $ax + by + cz + k = 0$
if not, then convert

perp dist, $d = \left| \frac{ax_1 + by_1 + cz_1 + k}{\sqrt{a^2 + b^2 + c^2}} \right|$

where, (x_1, y_1, z_1) is position of camera

→



Hit distance, $L = \frac{d}{\cos(\theta)}$

Hit position = $L\vec{a} = \vec{L}$