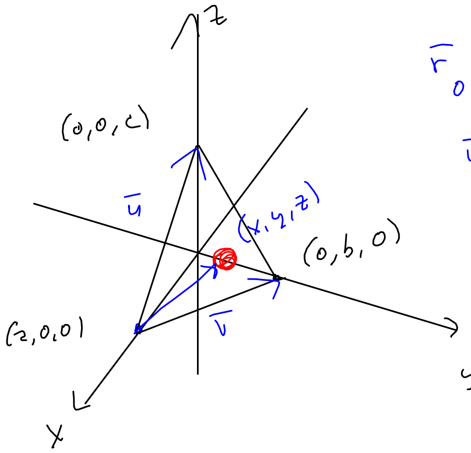


$\bar{r}_0 = \langle a,0,0\rangle$

$\bar{u} = \langle 0,0,c\rangle - \langle a,0,0\rangle$
$= \langle -a,0,c\rangle = \bar{u}$

$\bar{v} = \langle 0,b,0\rangle - \langle a,0,0\rangle$
$= \langle -a,b,0\rangle = \bar{v}$

$\bar{u}\times\bar{v} = \bar{n}$:

$$\begin{array}{rcccc} & -a, & 0, & c, & -a,\ 0 \\ \times & -a, & b, & 0, & -a,\ b \\ \hline & \multicolumn{4}{c}{\langle -bc, -ac, -ab\rangle = \bar{n}} \end{array}$$

Let (x,y,z) be a point in the plane.

Then $\langle x-a, y-0, z-0\rangle$ is in the plane ∴

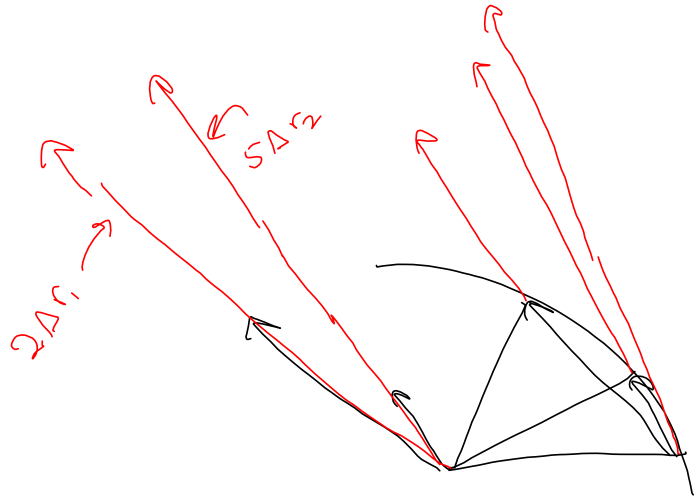
$\bar{n}\cdot\langle x-a, y, z\rangle = 0$

$\langle -bc, -ac, -ab\rangle \cdot \langle x-a, y, z\rangle$

$= -bc(x-a) + -ac(y) - ab(z) = 0$

$$\frac{\bar{r}(4.2)-\bar{r}(4)}{.2} = \frac{\sim}{\frac{1}{5}} = 5\sim$$

$$= 5\left(\bar{r}(4.2)-\bar{r}(4)\right)$$



$$\bar{r}'(t) = \lim_{h\to 0} \frac{\bar{r}(t+h)-\bar{r}(t)}{h}$$

$$= \frac{\langle x(t+h), y(t+h), z(t+h)\rangle - \langle x(t), y(t), z(t)\rangle}{h}$$

$$= \frac{1}{h}\langle x(t+h)-x(t), y(t+h)-y(t), z(t+h)-z(t)\rangle$$

$$= \left\langle \frac{x(t+h)-x(t)}{h}, \frac{y(t+h)-y(t)}{h}, \frac{z(t+h)-z(t)}{h}\right\rangle$$

$$\xrightarrow{h\to 0} \left\langle \frac{dx}{dt}, \frac{dy}{dt}, \frac{dz}{dt}\right\rangle.$$