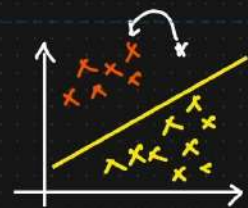
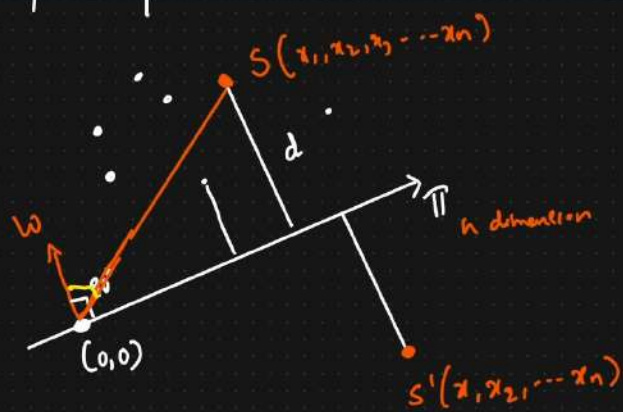


Distance of a point from plane

$$\boxed{w^T x = 0}$$

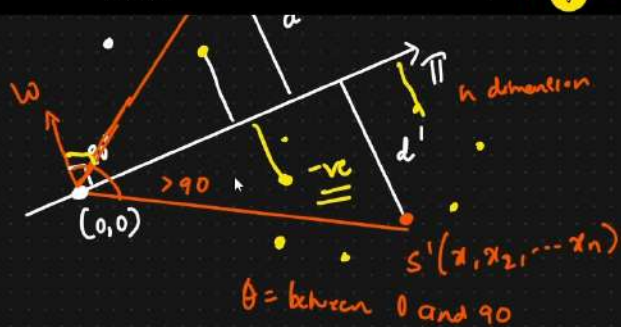


$$\boxed{d = \frac{w^T S}{\|w\|}}$$

$$\Rightarrow w^T S = \|w\| \|S\| \cos \theta = +ve$$



$$\omega^T x = 0$$



$$d = \frac{\omega^T s}{\|\omega\|}$$

$$\Rightarrow \omega^T s = \|\omega\| \|s\| \cos \theta = +ve$$

$$d = \frac{\omega^T s'}{\|\omega\|} \Rightarrow \omega^T s' = \|\omega\| \|s'\| \cos \theta = \boxed{-ve}$$

