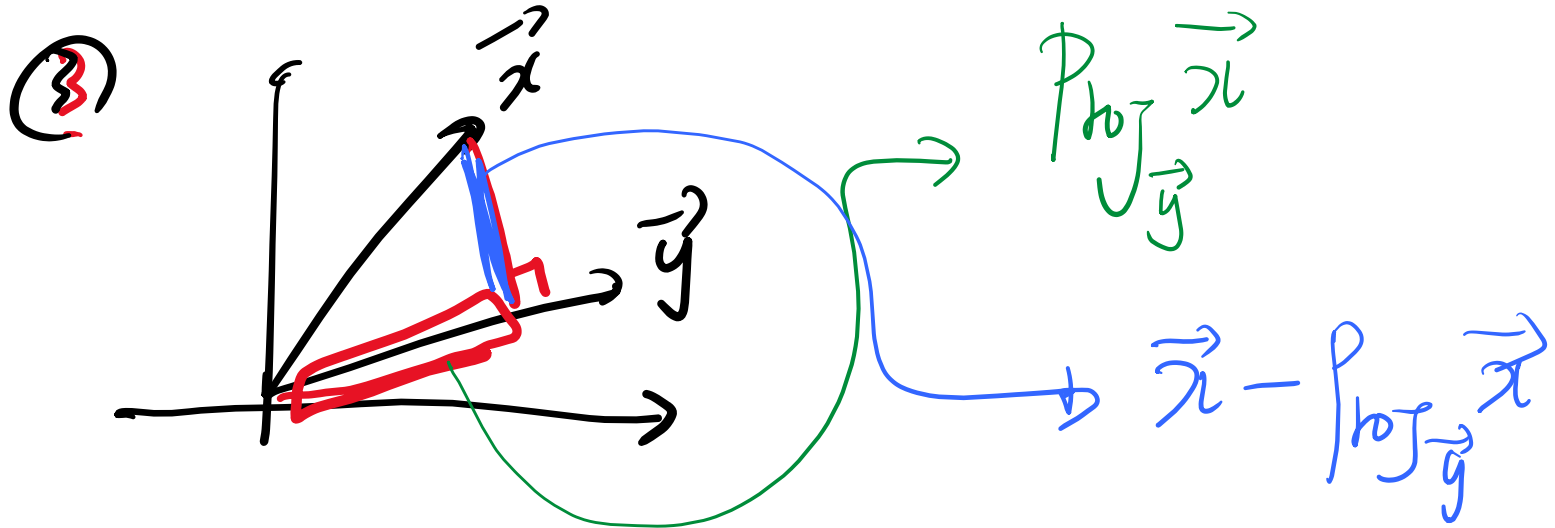
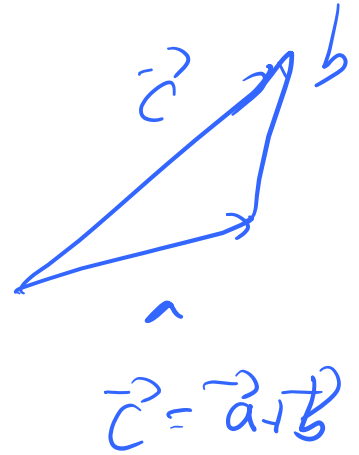


423 $X, Y \rightarrow \langle X, Y \rangle = \|X\|_2 \|Y\|_2 \cos \theta$

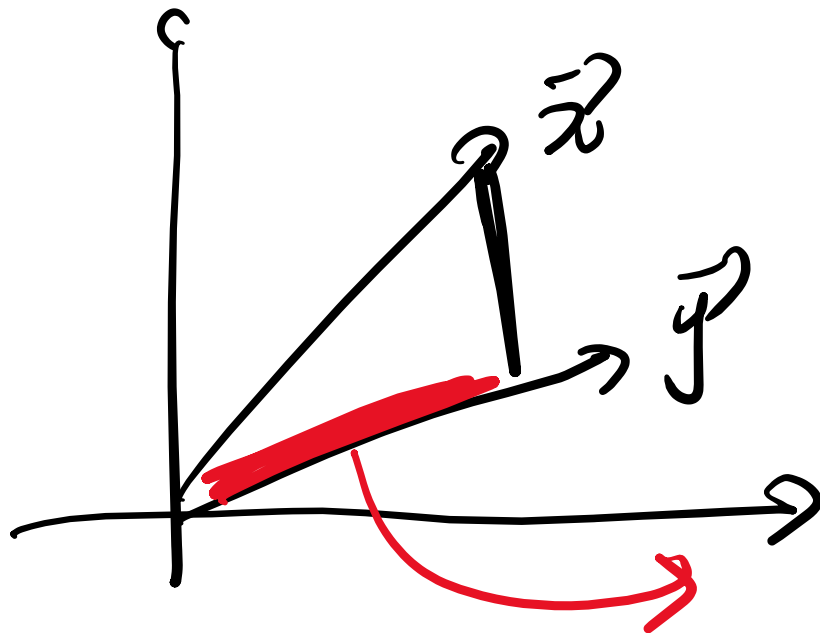
① $= X^T Y$

② $\langle X, X \rangle = X^T X = \|X\|_2^2$



$$y = \ln x \rightarrow y' = 1/x$$

$$y = x^2 \rightarrow y' = 2x$$

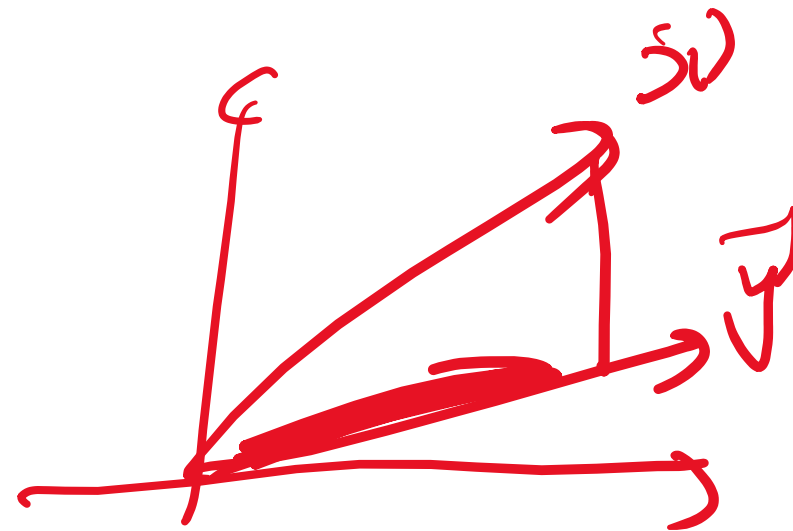


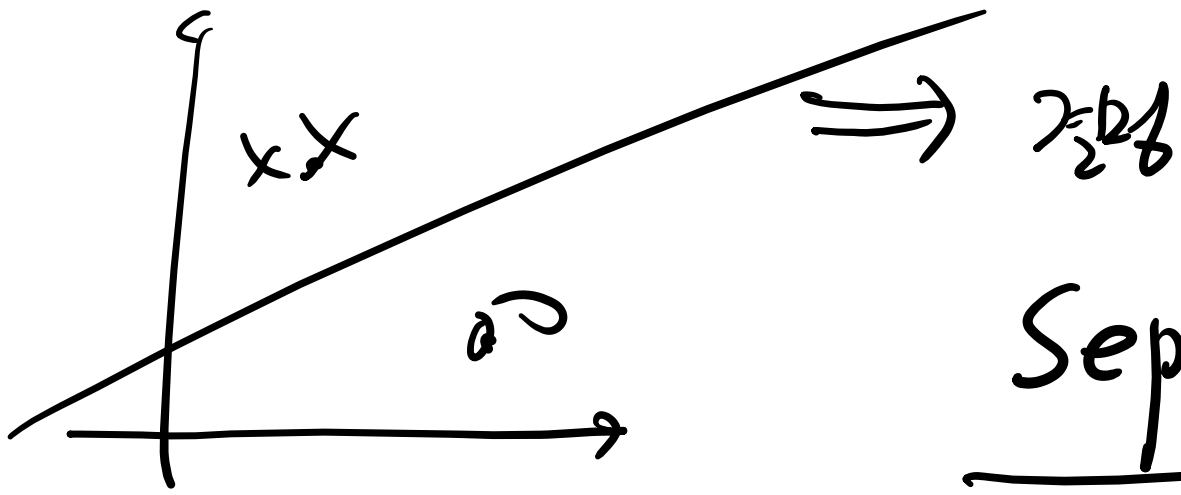
$$p_{J_{\vec{y}}} \vec{x} = \frac{y y^T}{y^T y} \cdot x$$

$$P = \frac{y y^T}{y^T y} \cdot x$$

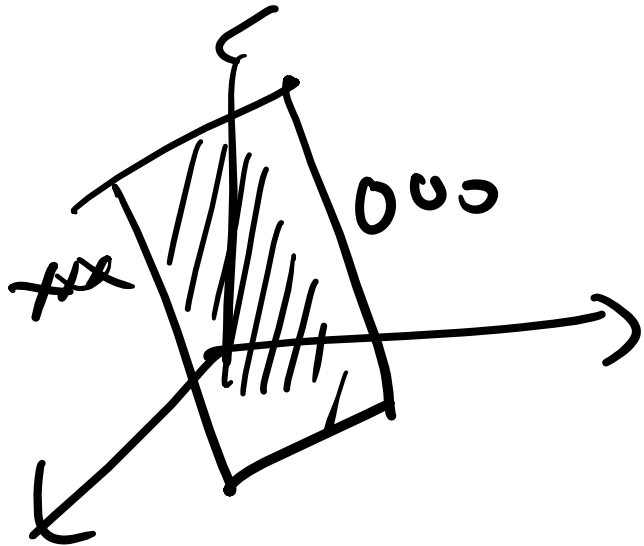
$$= \frac{y y^T}{\cancel{\|y\|_2^2}} \cdot x$$

$$= \frac{y^T}{\|y\|} \cdot x$$





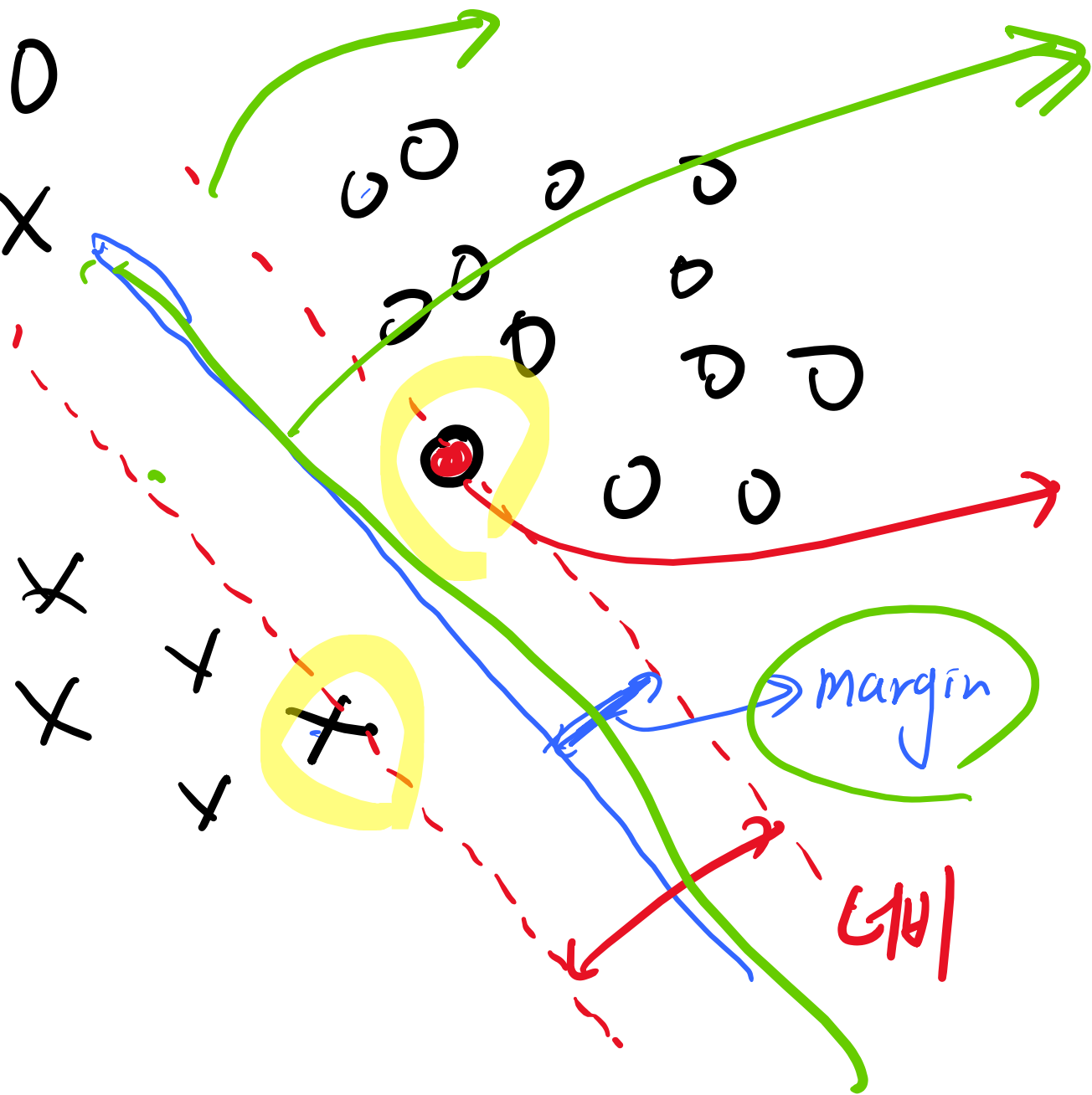
Separating line
(분리선)



Separating hyperplane (분리면)

클래스 0

클래스 1



optimal
separating Hyperplane.

Support Vector
Machine
(SVM)

max Margin



최적화