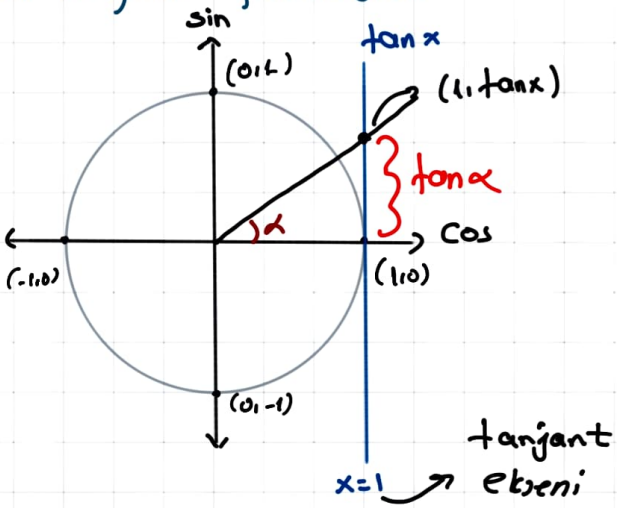
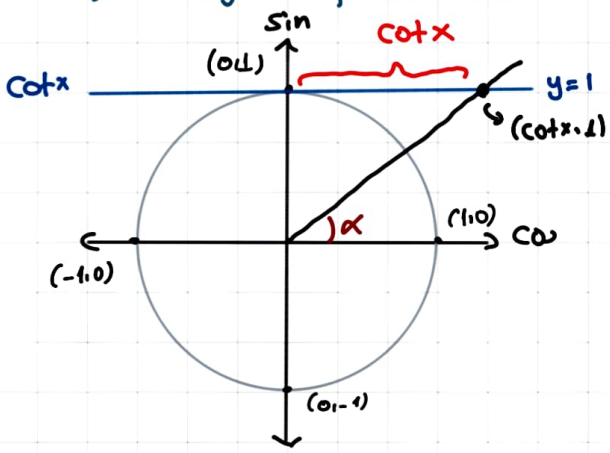
3) Tanjant fonksiyonu



Tanım aralığı

$-\infty < \tan x < \infty$

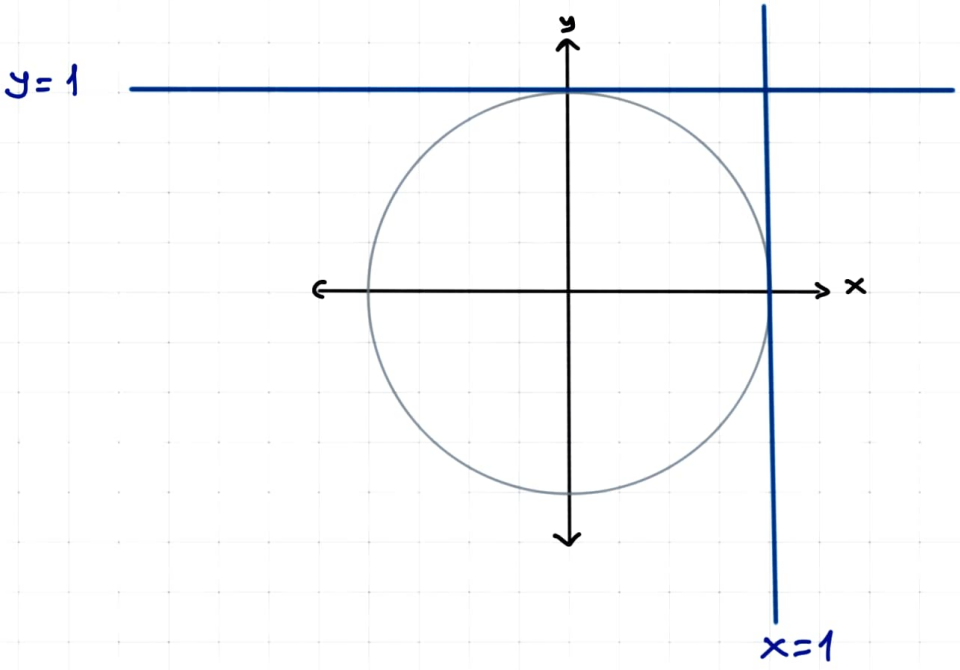
4) Cotanjant fonksiyonu

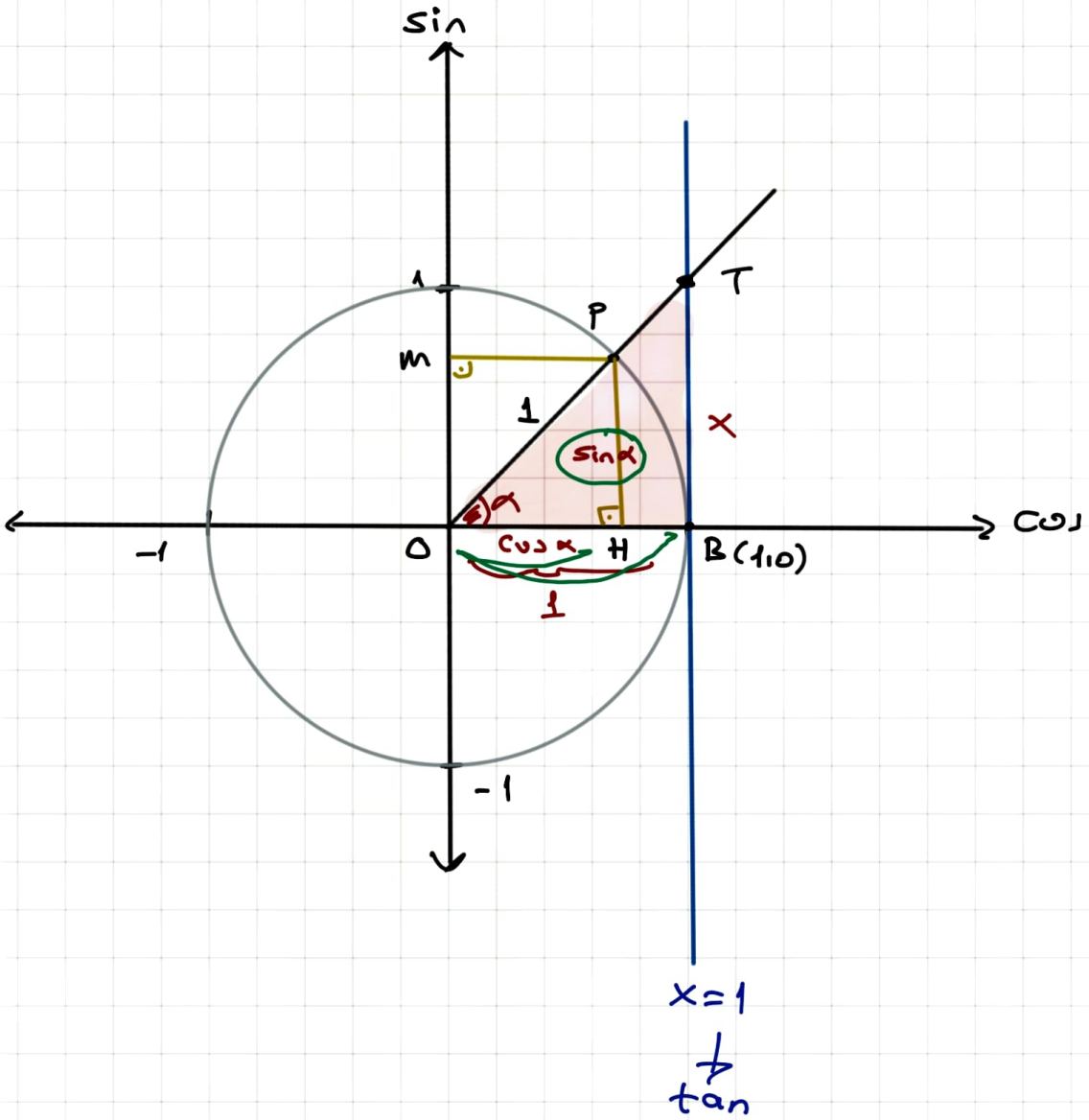


Tanım aralığı

$-\infty < \cot x < \infty$

Neden bu aralık ?

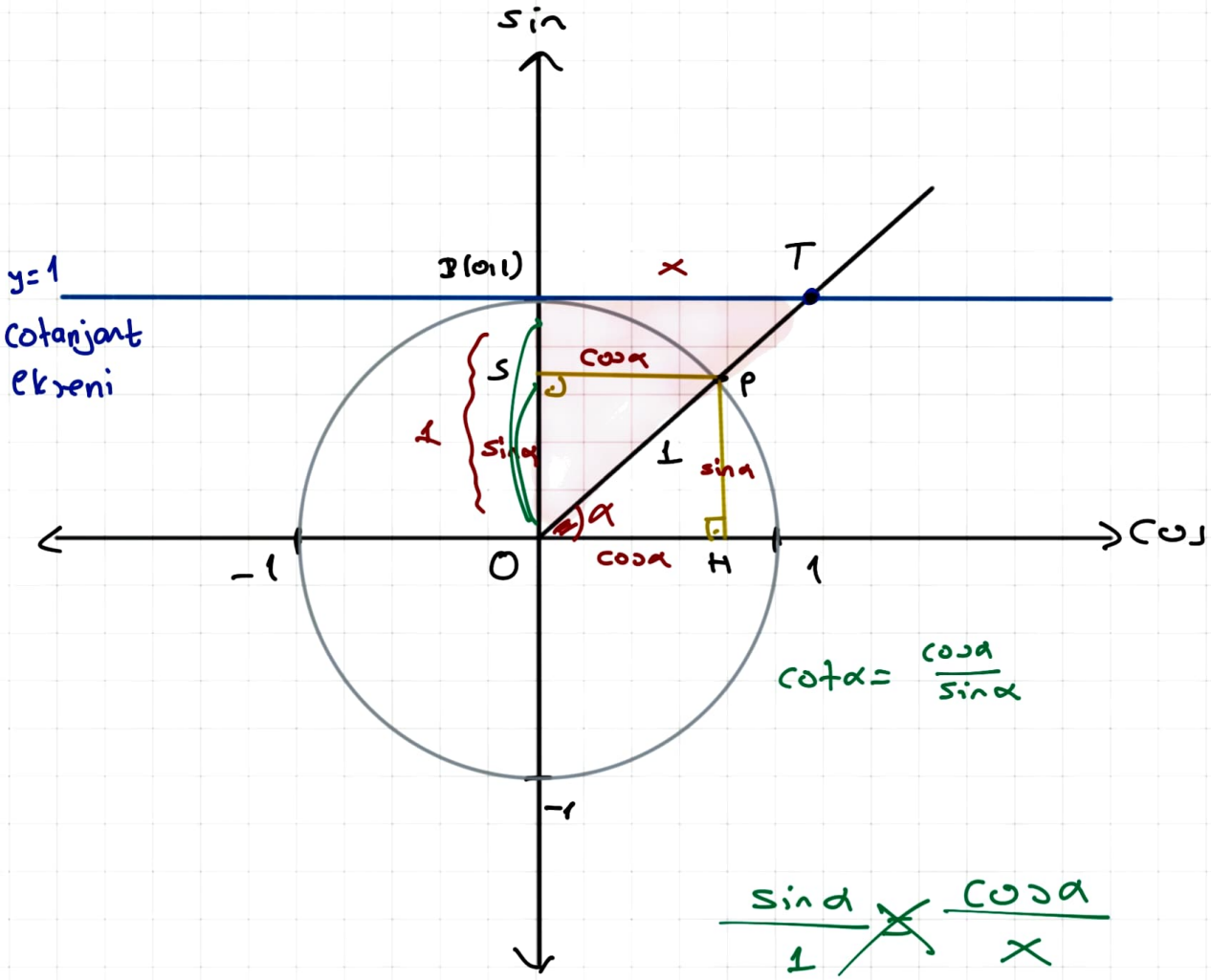




$$\frac{\cos\alpha}{1} \not= \frac{\sin\alpha}{x}$$

$$\sin\alpha = x \cdot \cos\alpha$$

$$\tan\alpha = \frac{\sin\alpha}{\cos\alpha}$$

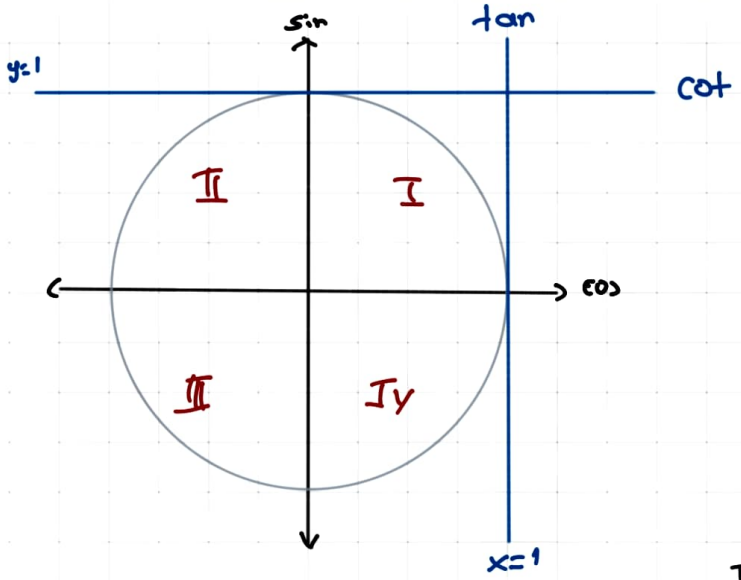


$$\cot\alpha = \frac{\cos\alpha}{\sin\alpha}$$

$$\frac{\sin\alpha}{1} \quad \frac{\cos\alpha}{x}$$

$$\cos\alpha = \sin\alpha \cdot x$$

$$x = \frac{\cos\alpha}{\sin\alpha}$$



$$\tan x = \frac{\sin x}{\cos x}$$

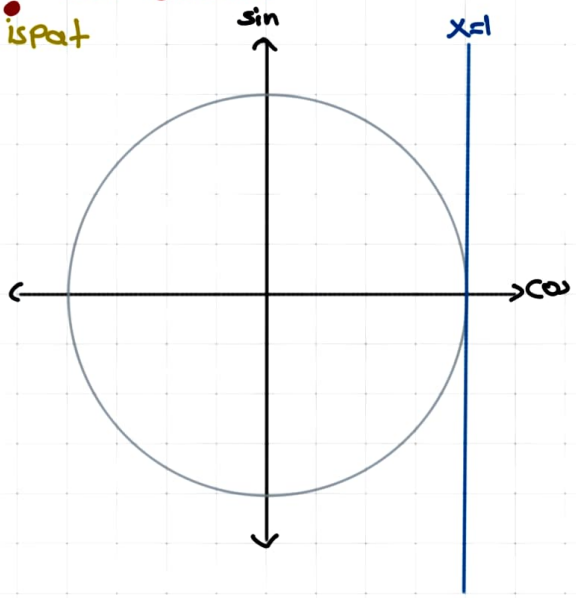
$$\cot x = \frac{\cos x}{\sin x}$$

	tanx	cotx
I. bölge →	+	+
II. bölge →	+	−
III. bölge →	−	−
Iv. bölge →	−	+

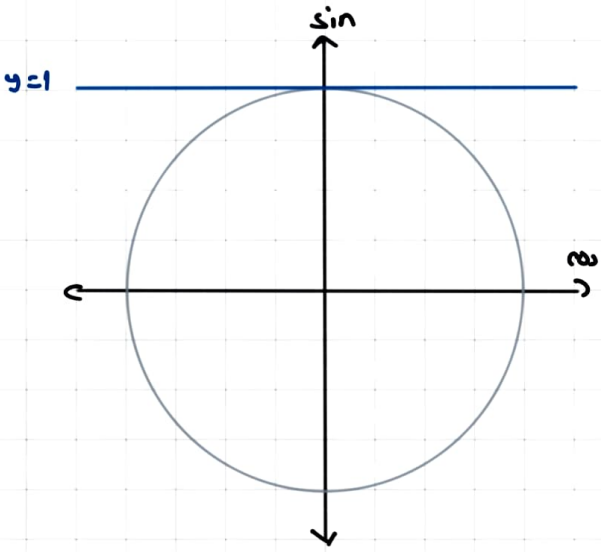
	tanx	cotx
0° →	0	tanımsız
90° →	tanımsız	0
180° →	0	tanımsız
270° →	tanımsız	0
360° →	0	tanımsız

⚠ Çok önemli

İspat

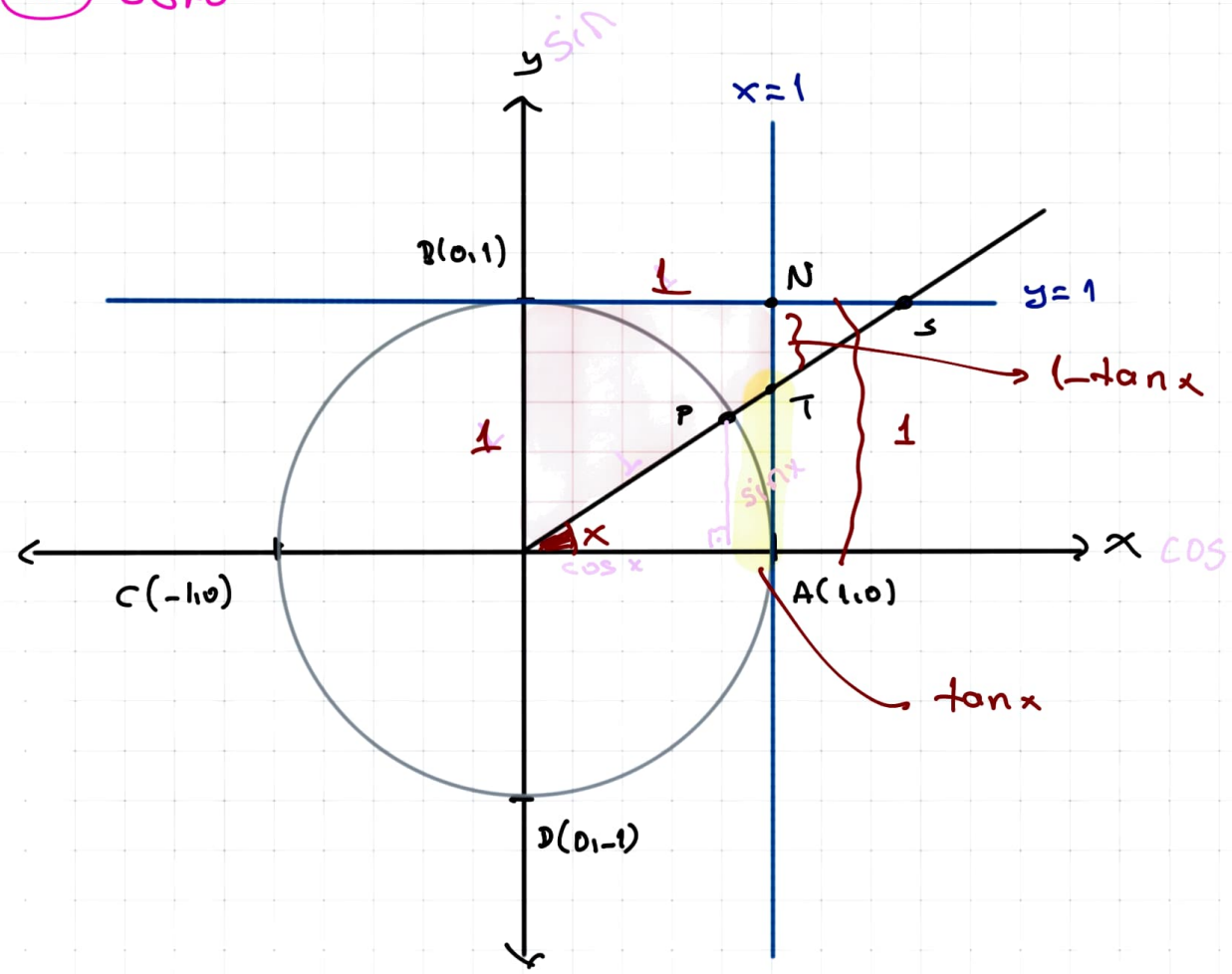


$$\tan\alpha = \frac{\sin\alpha}{\cos\alpha}$$

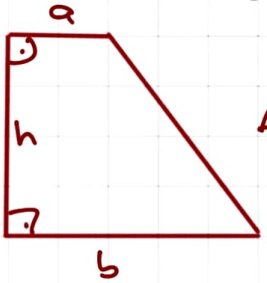


$$\cot\alpha = \frac{\cos\alpha}{\sin\alpha}$$

? SORU



Pembe bölgenin x cinsinden değeri ?



Alan = $\frac{(a+b)\cdot h}{2}$

$(1-\tan x+1)\cdot\frac{1}{2}$

$(2-\tan x)\cdot\frac{1}{2}$

$\vdots$