

2^a
SÉRIE

CANAL SEDUC-PI2



PROFESSOR (A):



DISCIPLINA:



CONTEÚDO:



TEMA GERADOR:



DATA:

KESLLER

MATEMÁTICA

**CIRCUNFERÊNCIA
TRIGONOMÉTRICA**

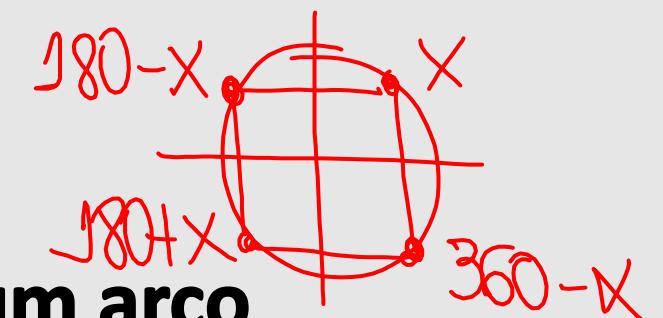
**SAÚDE
NA ESCOLA**

19.06.2019

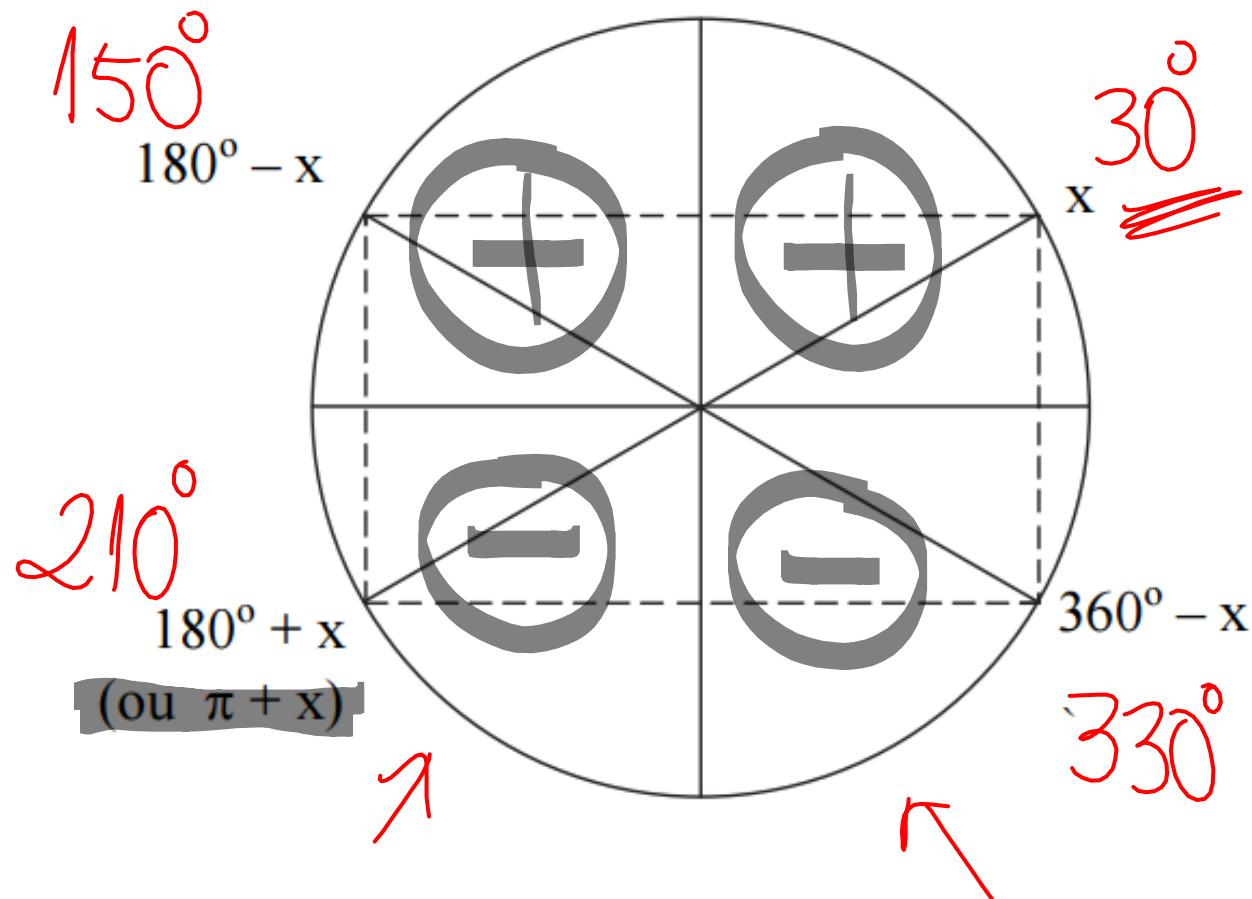
ROTEIRO DE AULA

CIRCUNFERÊNCIA TRIGONOMÉTRICA

- Simetrias; ✓
- Seno e Cosseno de um arco
trigonométrico-(Variação de sinal)
- Função seno e cosseno

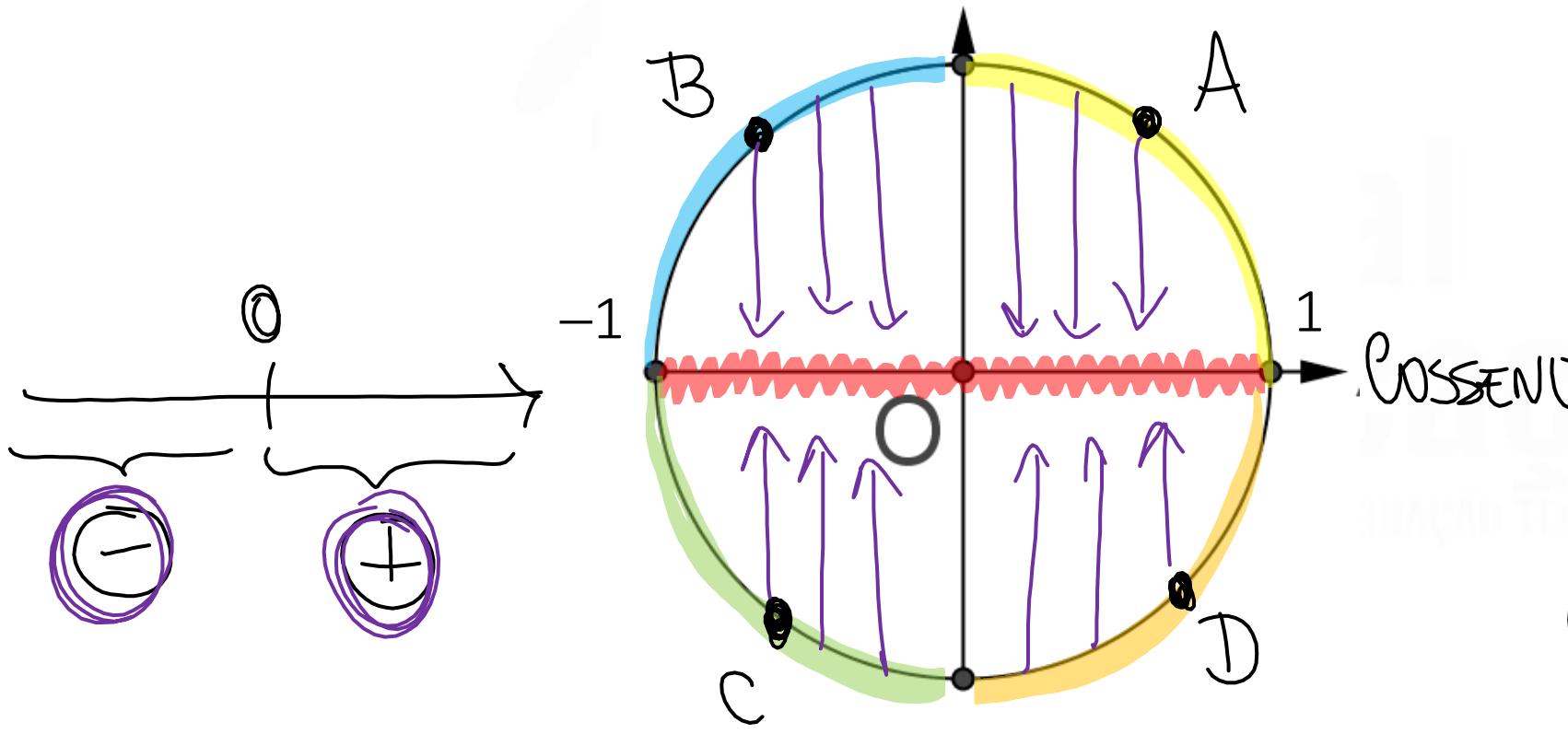


Seno de 30° , 45° e 60° e seus simétricos

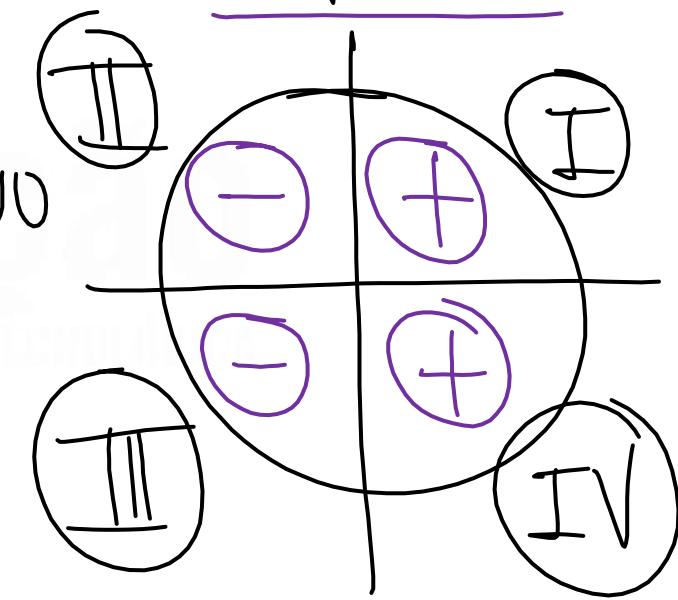


30°	150°	210°	330°
$+\frac{1}{2}$	$+\frac{1}{2}$	$-\frac{1}{2}$	$-\frac{1}{2}$
45°	135°	225°	315°
$+\frac{\sqrt{2}}{2}$	$+\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{2}}{2}$
60°	120°	240°	300°
$+\frac{\sqrt{3}}{2}$	$+\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{3}}{2}$

Variação de sinal (Cosseno)

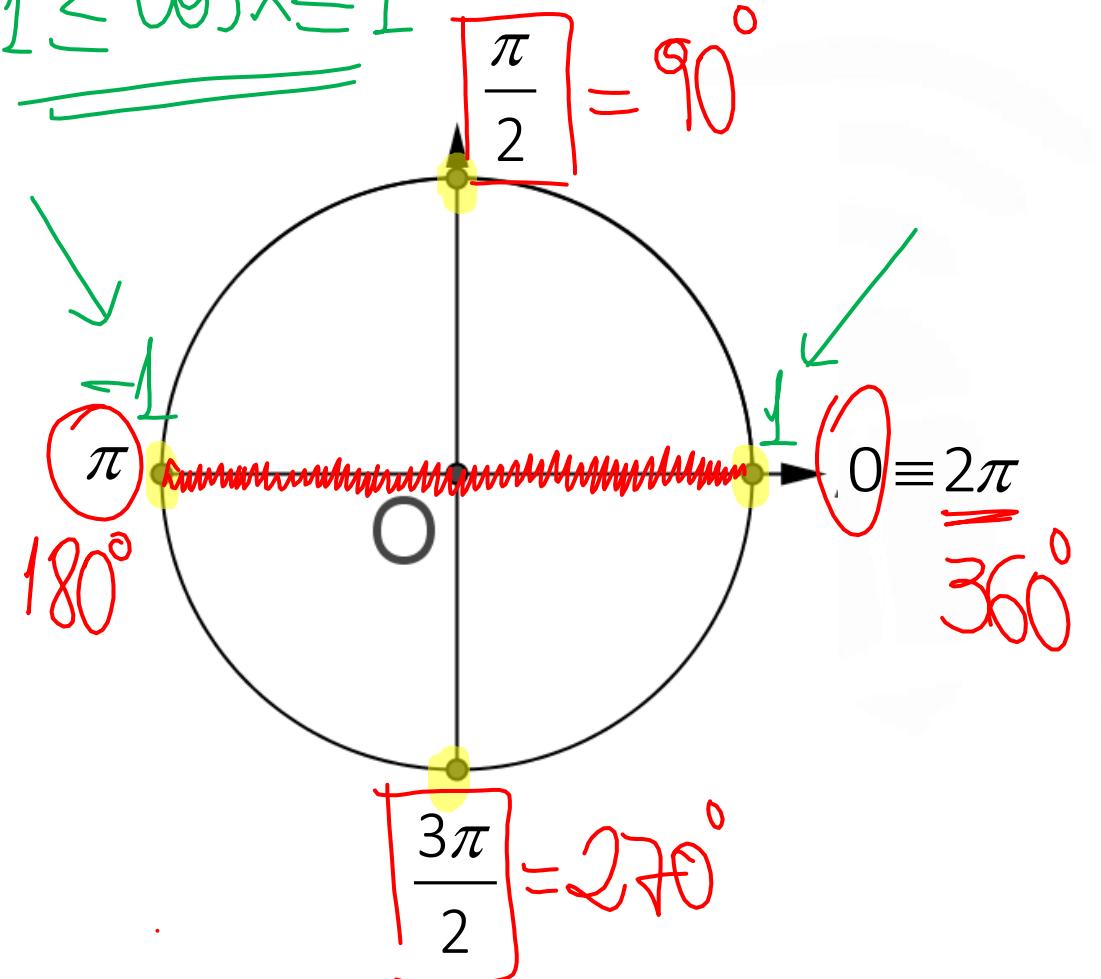


VARIACAS DE SINAL



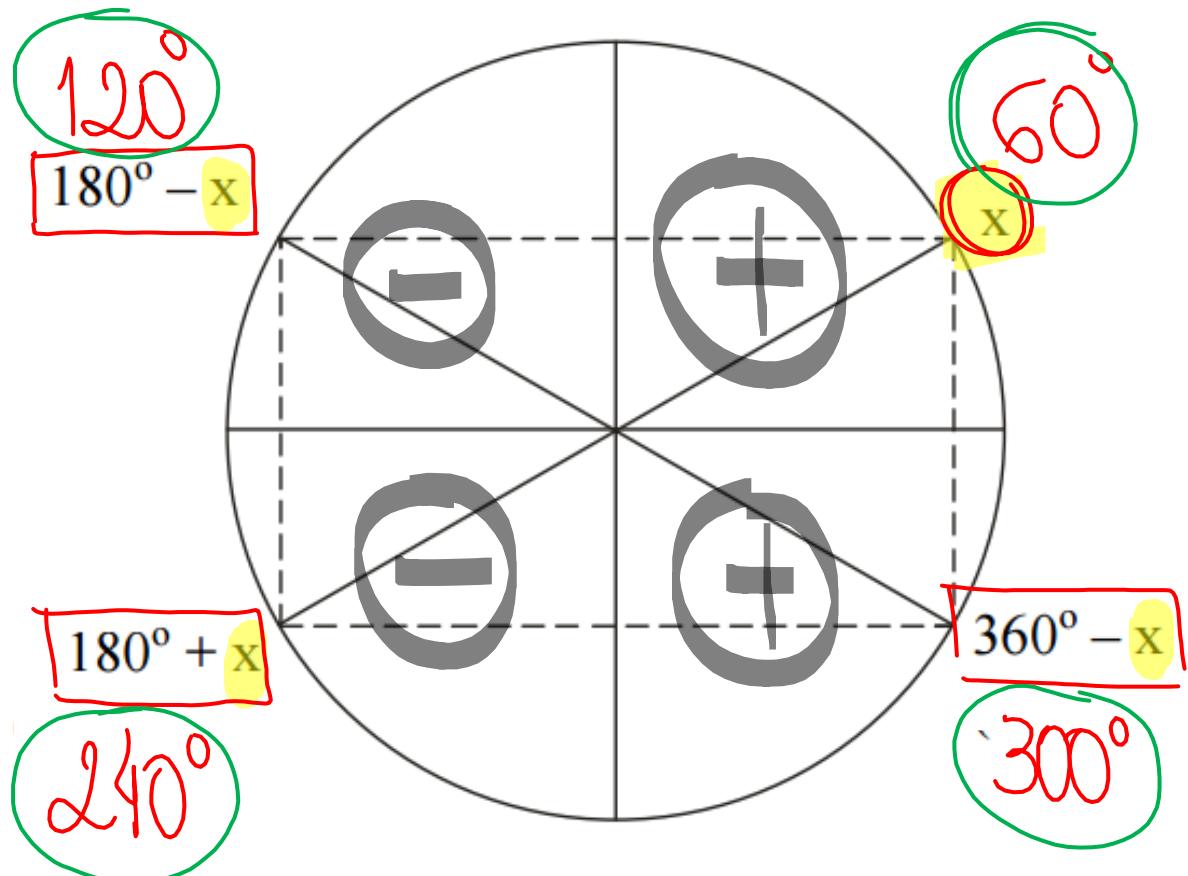
Cosseno dos Arcos Notáveis

$$-1 \leq \cos x \leq 1$$



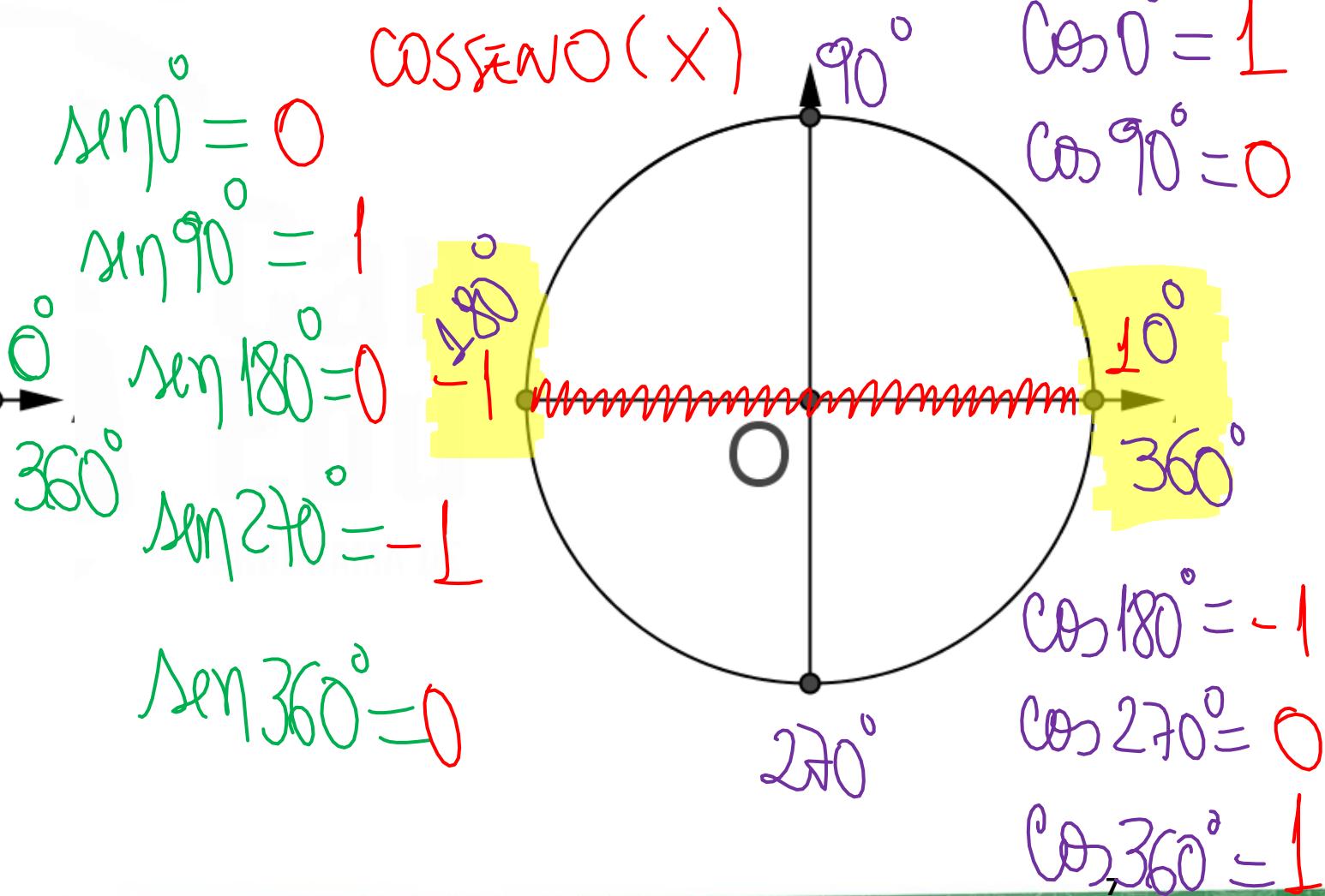
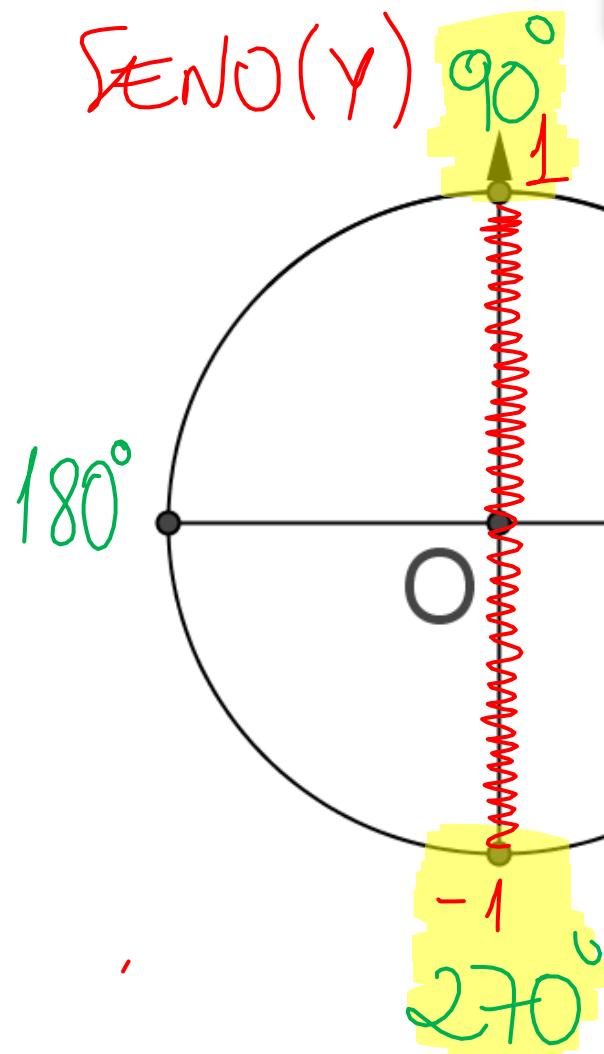
Ângulo	Cosseno
* 0°	1
90° ou $\frac{\pi}{2}$	0
* 180° ou π	-1
270° ou $\frac{3\pi}{2}$	0
* 360° ou 2π	1

Cosseno de 30° , 45° e 60° e seus simétricos



30°	150°	210°	330°
$+\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{3}}{2}$	$+\frac{\sqrt{3}}{2}$
45°	135°	225°	315°
$+\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{2}}{2}$	$+\frac{\sqrt{2}}{2}$
60°	120°	240°	300°
$+\frac{1}{2}$	$-\frac{1}{2}$	$-\frac{1}{2}$	$+\frac{1}{2}$

Circunferência trigonométrica



EXERCÍCIO 1

Leandro e mais sete amigos saíram para comer uma pizza tamanho GG. Dividiram a pizza em **oito fatias** iguais.

Sabendo que a pizza tinha o formato circular, o ângulo do arco formado por **cada fatia** em radianos vale:

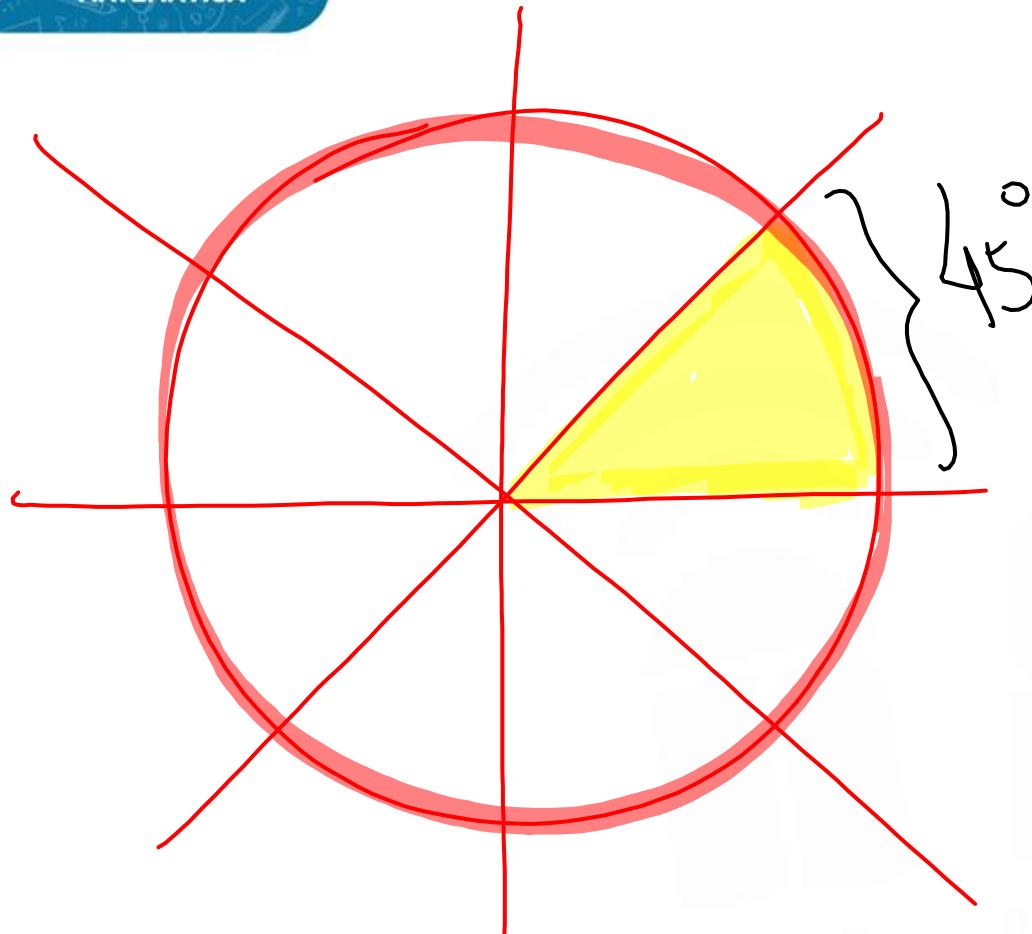
~~A) $\frac{\pi}{4} \text{ Rad}$~~

B) $\frac{\pi}{2} \text{ Rad}$

C) $\frac{\pi}{5} \text{ Rad}$

D) $\frac{2\pi}{3} \text{ Rad}$

E) $\frac{3\pi}{2} \text{ Rad}$



$$\frac{360^\circ}{(8)} \quad \underline{45^\circ}$$

$$180^\circ - \pi \text{ RAD}$$

$$45^\circ - x$$

$$180x = 45\pi$$

$$x = \frac{45\pi \div 45}{180 \div 45}$$

$$\Rightarrow x = \frac{\pi}{4} \text{ RAD}$$

1 volta $\Rightarrow 2\pi \text{ RAD}$

$$\frac{2\pi}{8} = \frac{\pi}{4} \text{ RAD}$$