

Foundation Batch



MATHS

Trigonometry

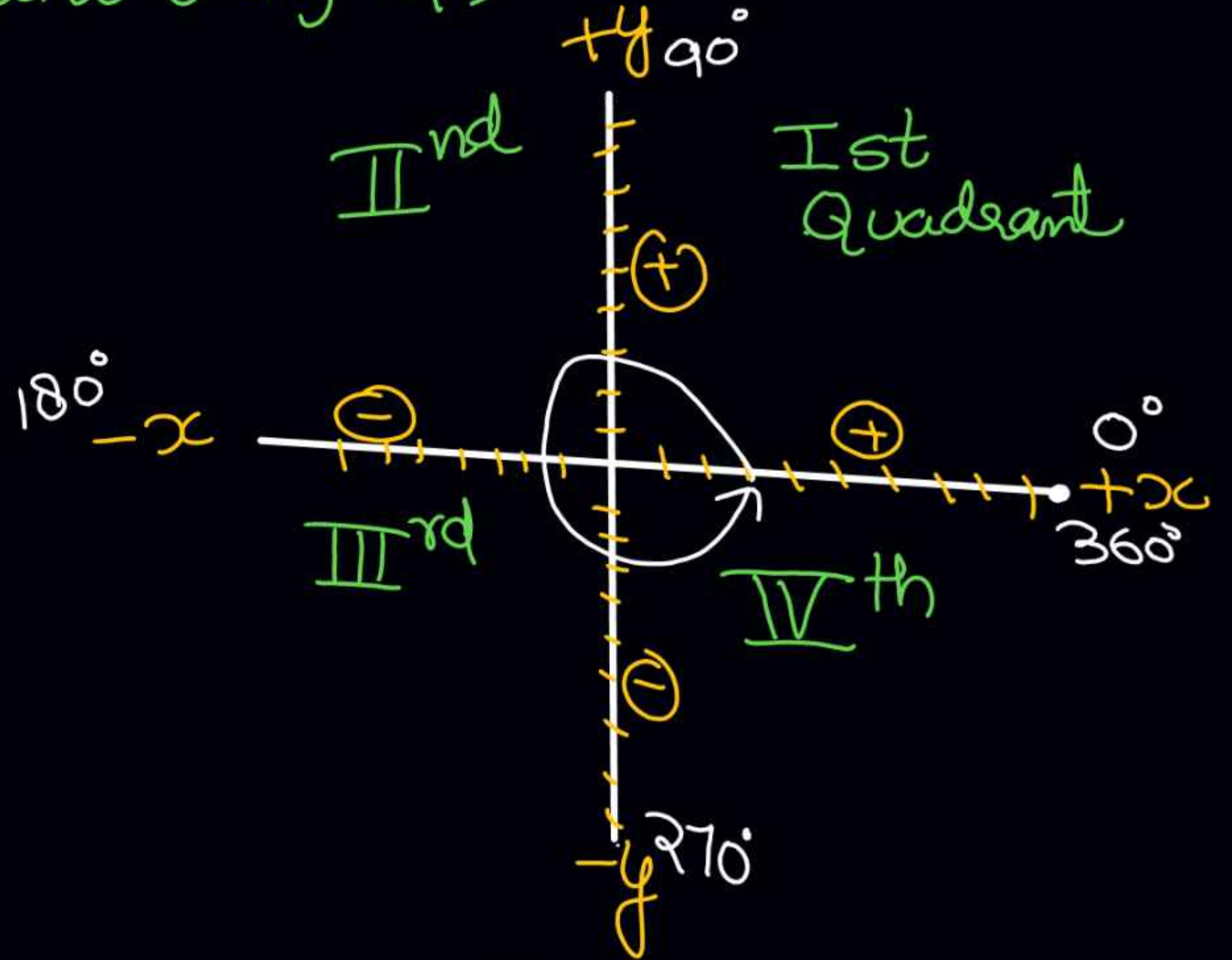
Part-02

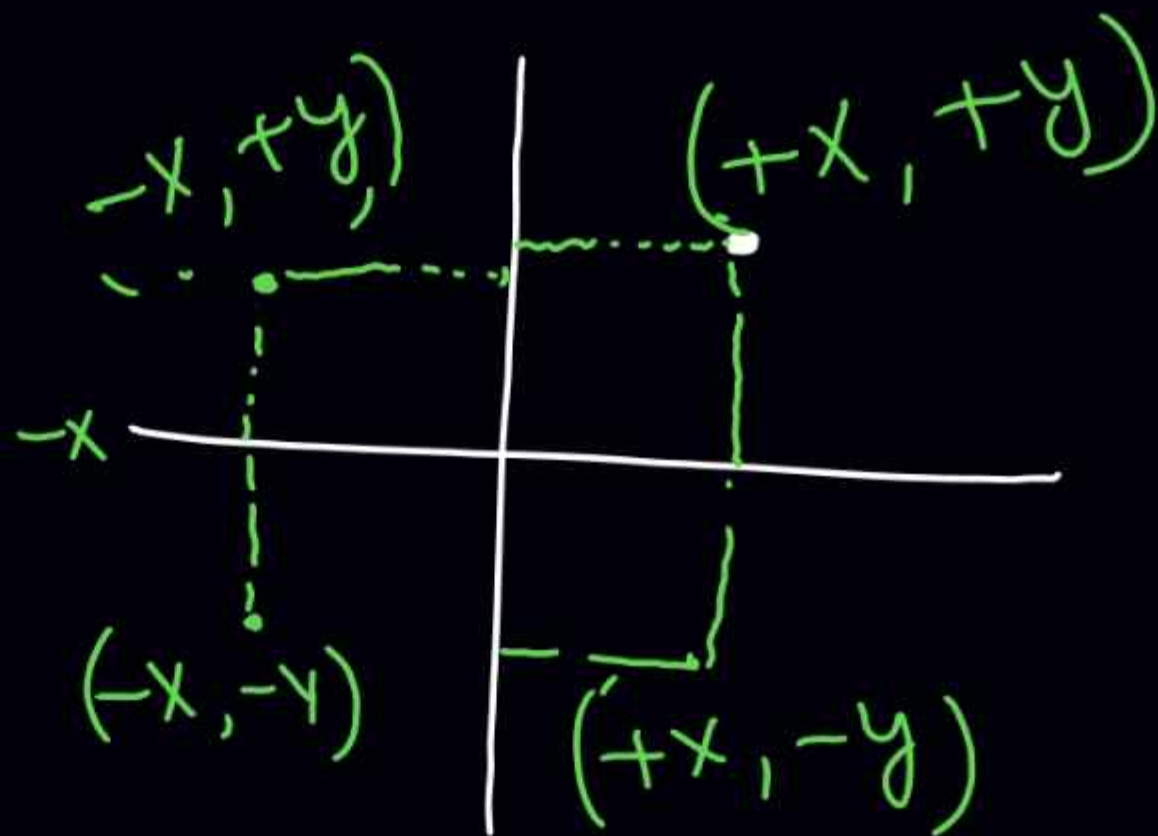
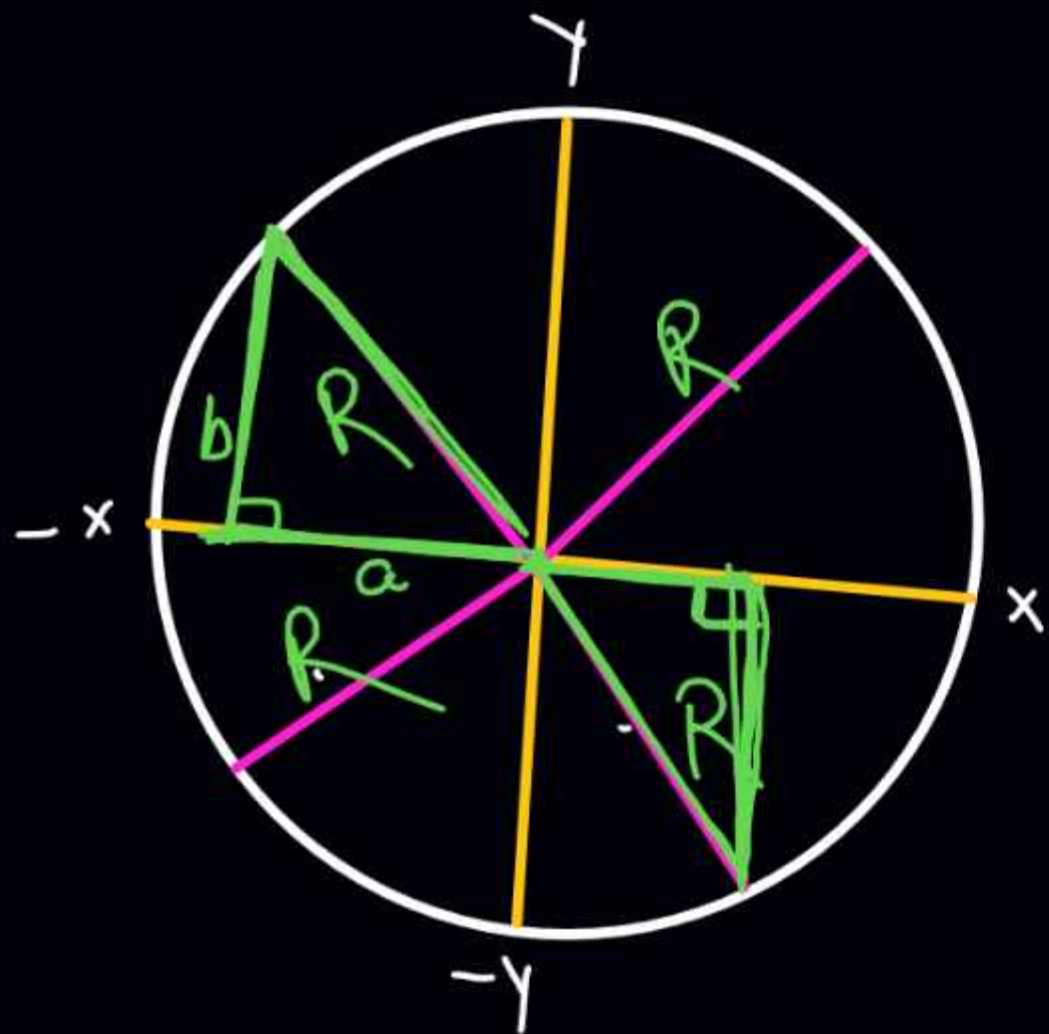
LIVE

28-10-2024 07:00PM



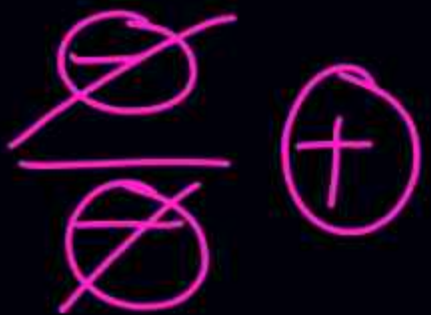
Quadrant (चतुर्थांश)



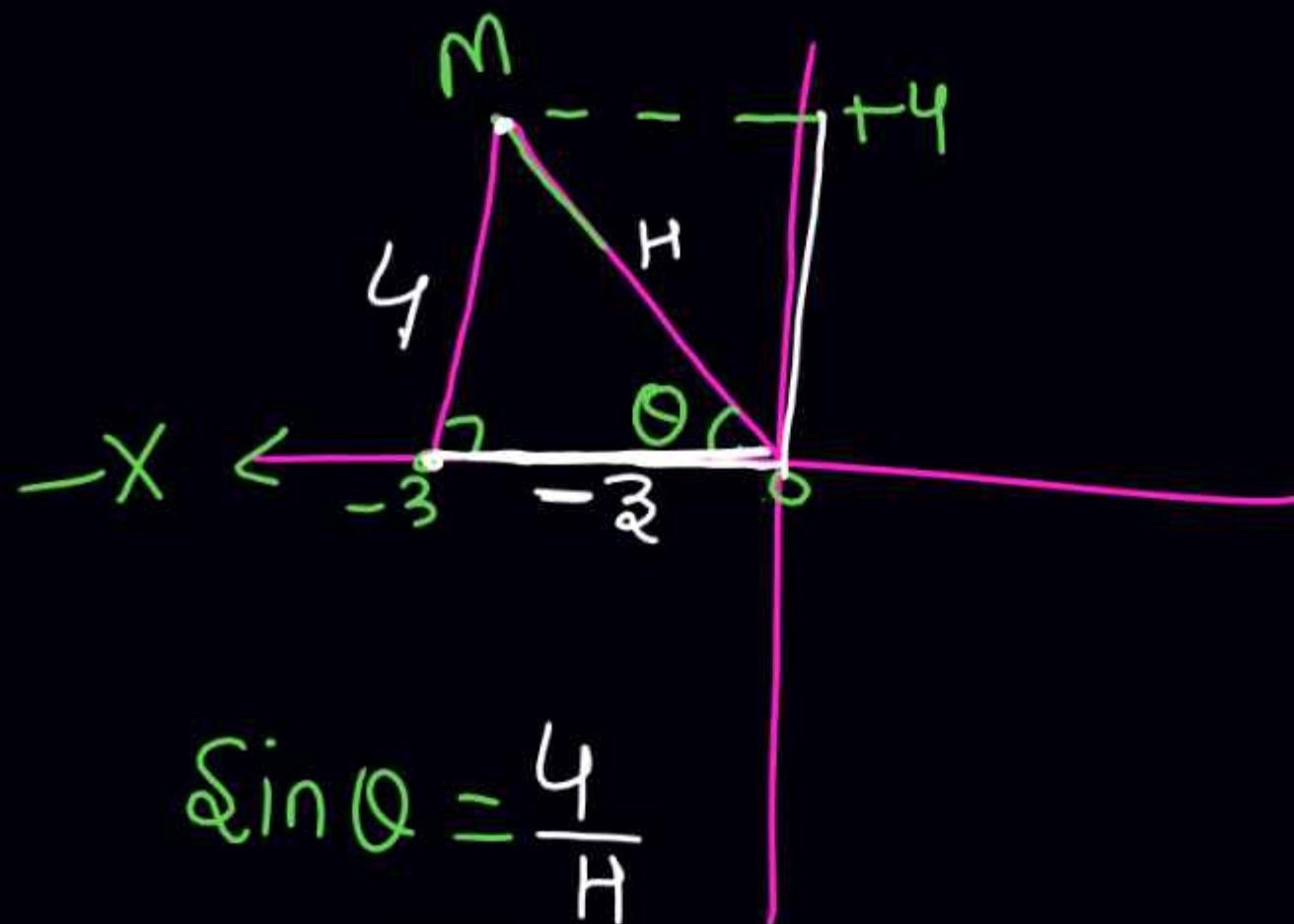


$$R = \sqrt{a^2 + b^2}$$

→ always positive

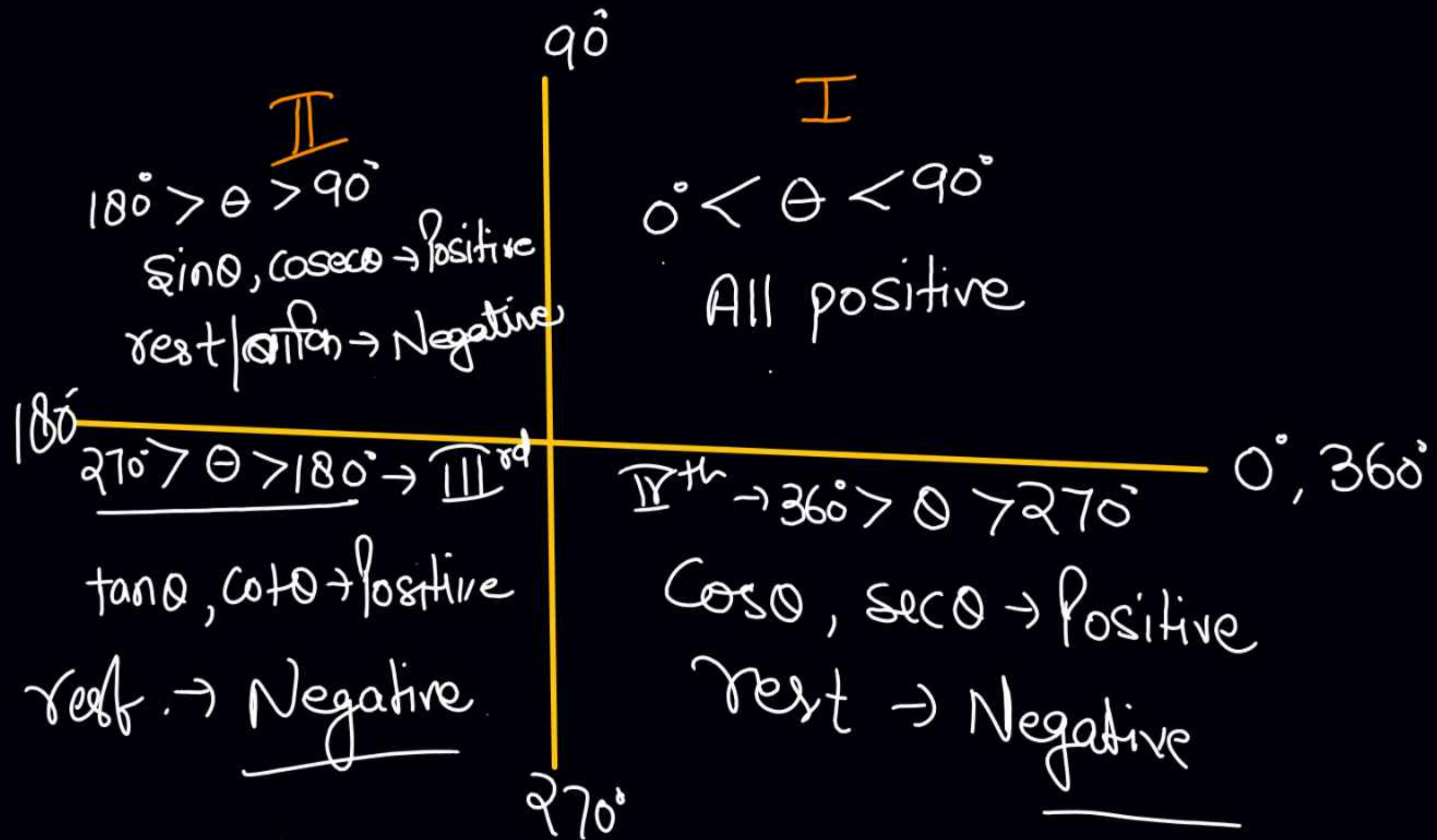


	I	II	III	IV
$\frac{P}{H} = \sin$	+	+	-	-
$\frac{B}{H} \cos$	+	-	-	+
$\frac{P}{B} \tan$	+	-	+	-
$\frac{H}{P} \operatorname{cosec}$	+	+	-	-
$\frac{H}{B} \sec$	+	-	-	+
$\frac{B}{P} \cot$	+	-	+	-



$$\sin \theta = \frac{4}{H}$$

$$\cos \theta = -\frac{3}{H}$$



Sine graph

$\sin \theta = 0$
if $\theta = \text{even multiples of } 90^\circ$
90° के सम गुणज

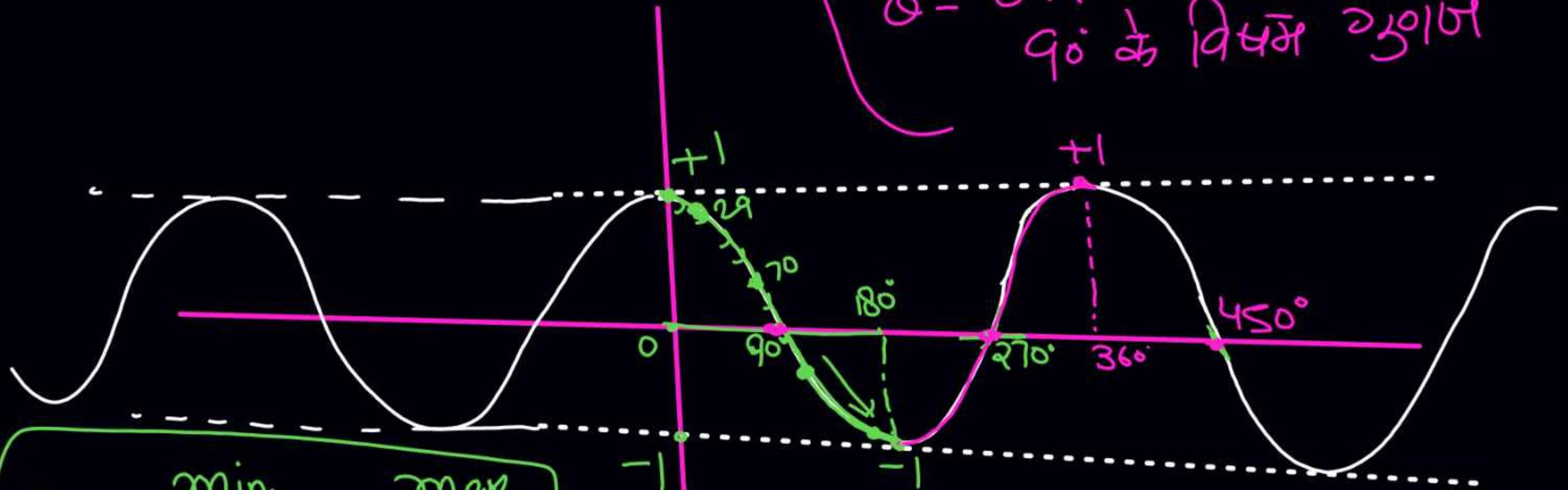


$\sin \theta$	min. value	max value
<u><u> </u></u>	-1	+1

- ① $\sin 39^\circ < \sin 72^\circ$
② $\sin 102^\circ > \sin 155^\circ$
③ $\sin 55^\circ > \sin 179^\circ$

Cosine Graph

$\cos \theta = 0$
 $\theta = \text{odd multiples of } 90^\circ$
 90° के विषम गुणज



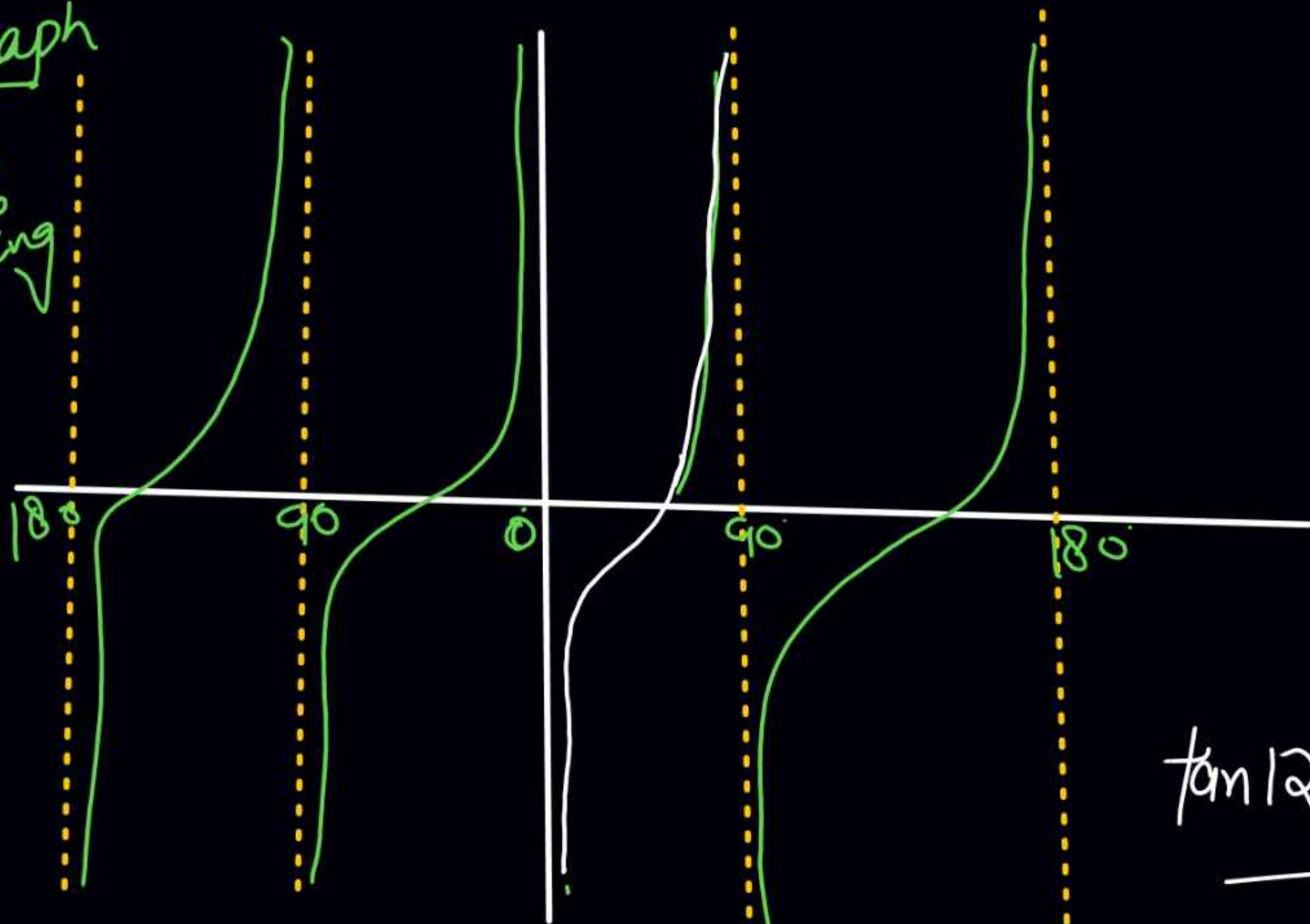
$\cos \theta$	min.	max
	-1	+1

$\cos \theta$

A	B
$\cos 29^\circ$	$\cos 70^\circ$
$\cos 120^\circ$	$\cos 170^\circ$

$\cos 29^\circ > \cos 70^\circ$
 $\cos 120^\circ > \cos 170^\circ$

tan graph
* always increasing



$\tan 127^\circ < \tan 145^\circ$

$\tan 30^\circ < \tan 60^\circ$