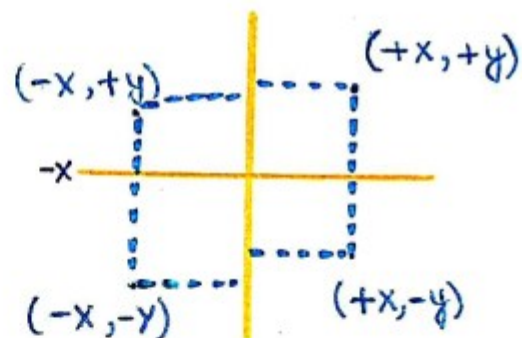
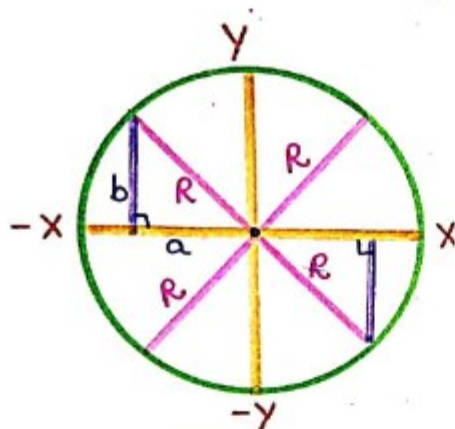
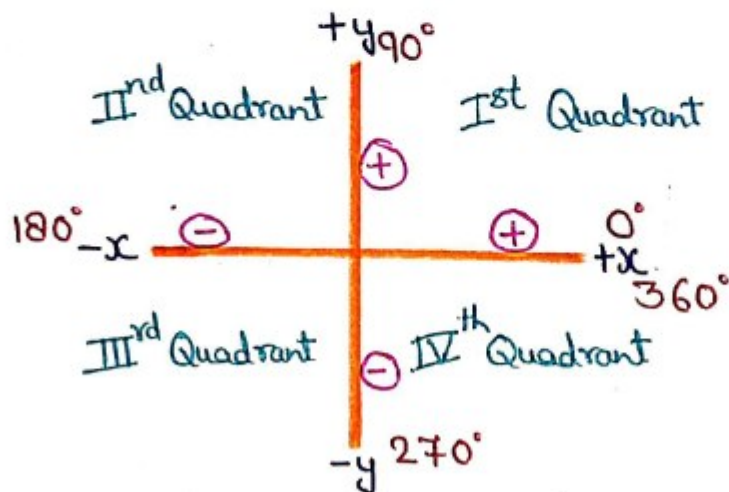
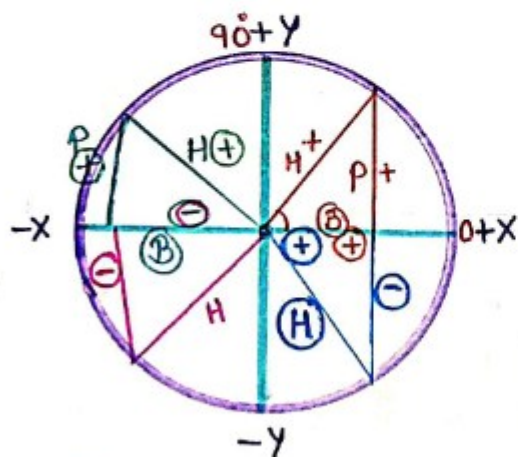


TRIGONOMETRY

QUADRANT (चतुर्थांश)



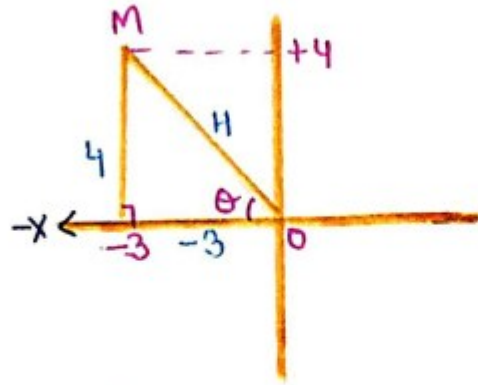
- $R = \sqrt{a^2 + b^2}$
- Radius always positive



$$\frac{\sin}{\cos} = (+)$$

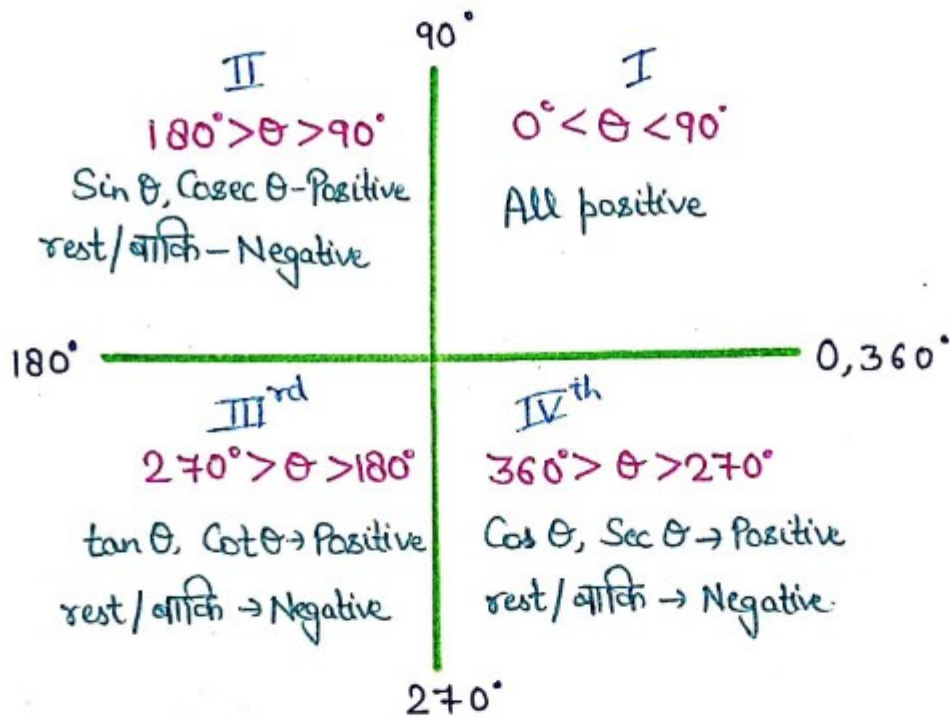
	I	II	III	IV
$\frac{P}{H}$ Sin	+	+	-	-
$\frac{B}{H}$ Cos	+	-	-	+
$\frac{P}{H}$ tan	+	-	+	-
$\frac{H}{P}$ Cosec	+	+	-	-
$\frac{H}{B}$ Sec	+	-	-	+
$\frac{B}{P}$ Cot	+	-	+	-

Ex:-

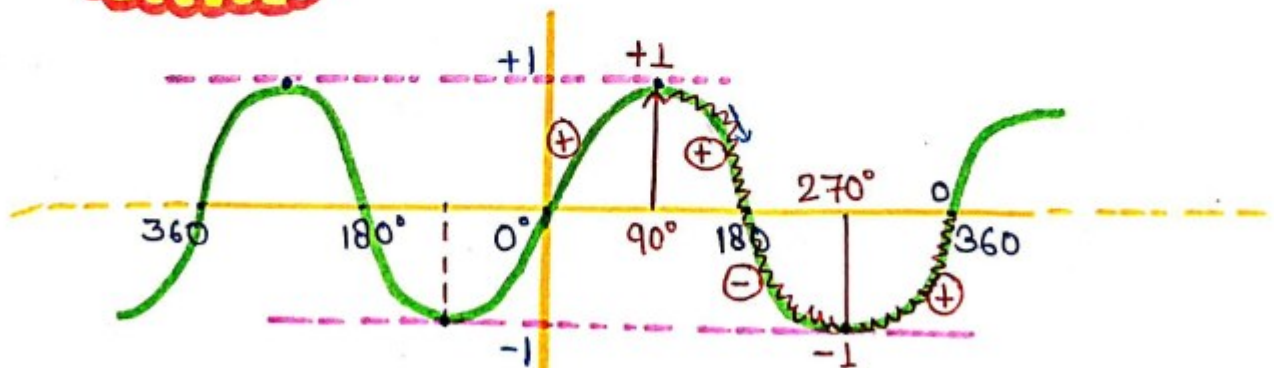


- $\sin \theta = \frac{4}{H}$

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



Sine Graph



$\sin 180^\circ = 0$
 $\sin 360^\circ = 0$

$\sin \theta = 0$

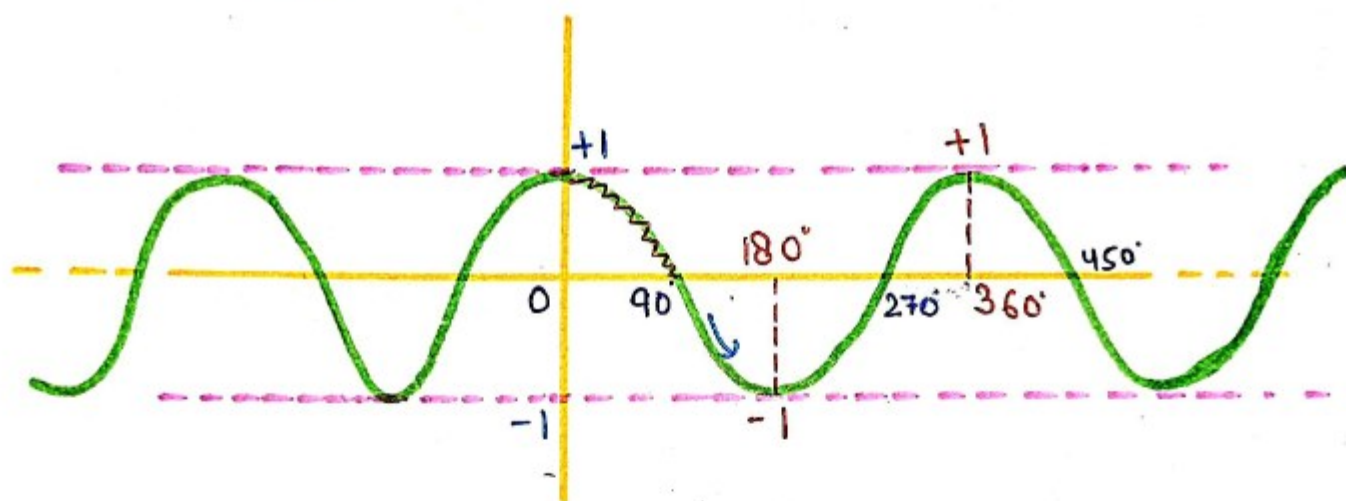
- if $\theta = \text{even multiples of } 90^\circ$ (90° के सम गुणज)

Ex:-

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

	Min. Value	Max. Value
$\sin \theta$	-1	+1

Cosine Graph



	Min. Value	Max. Value
$\cos \theta$	-1	+1

$\cos 90^\circ = 0$
 $\cos 270^\circ = 0$

$\cos \theta = 0$

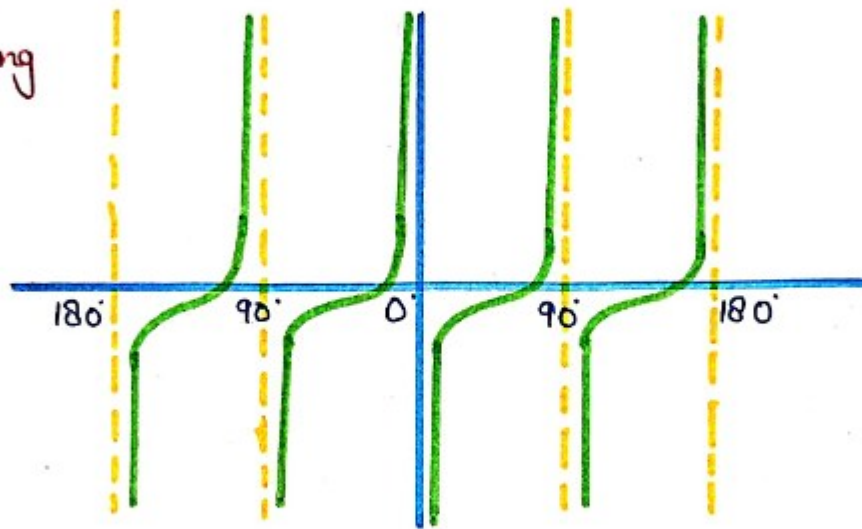
- $\theta = \text{odd multiples of } 90^\circ$ (90° के विषम गुणज)

Ex:-

- (A) (B)
- $\cos 29^\circ > \cos 70^\circ$
 - $\cos 120^\circ > \cos 170^\circ$

Tan Graph

* always increasing



Ex:-

- ① $\tan 30^\circ < \tan 60^\circ$
- ② $\tan 127^\circ < \tan 145^\circ$