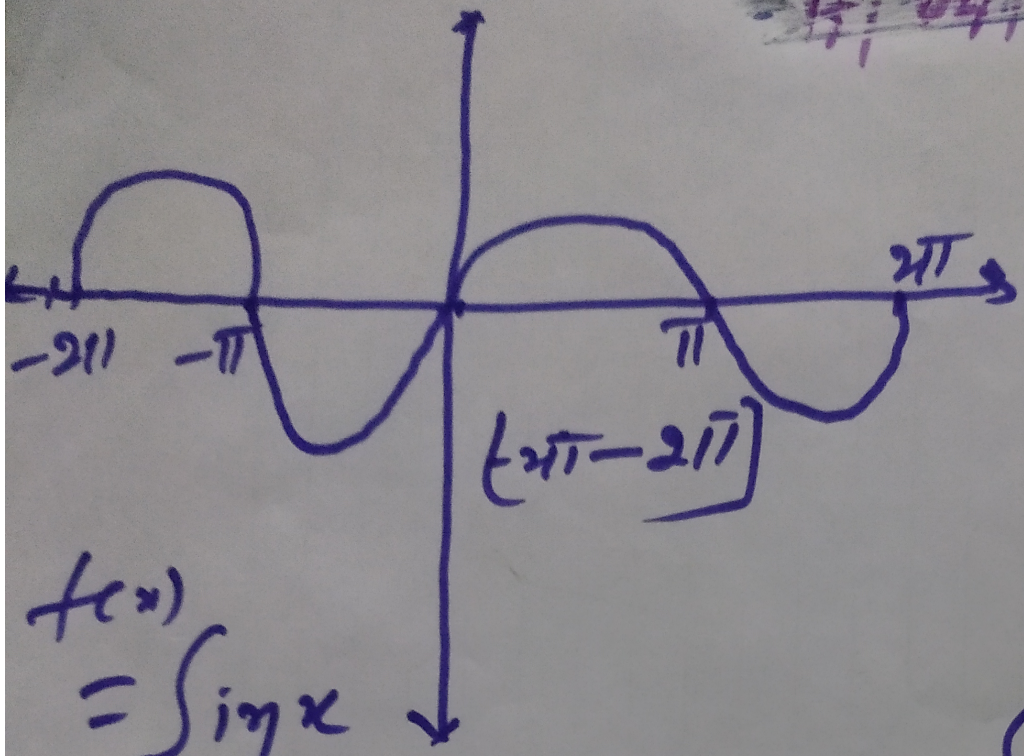
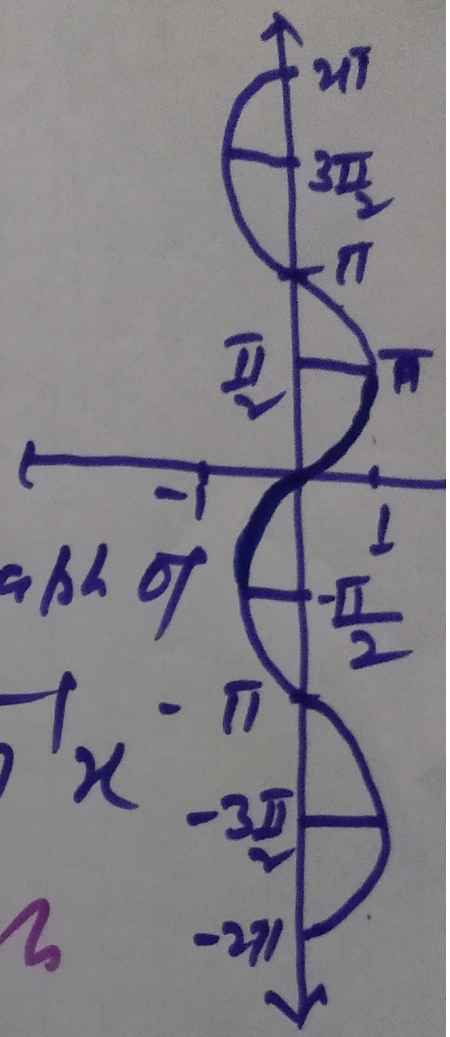
17/04/2020



$f(x) = \sin x$



Graph of $\sin^{-1} x$

Lalan Kumar Singh

17.04.020

20' JUNE

20 DAY 172-194 | Wk 25 SATURDAY

1- functions

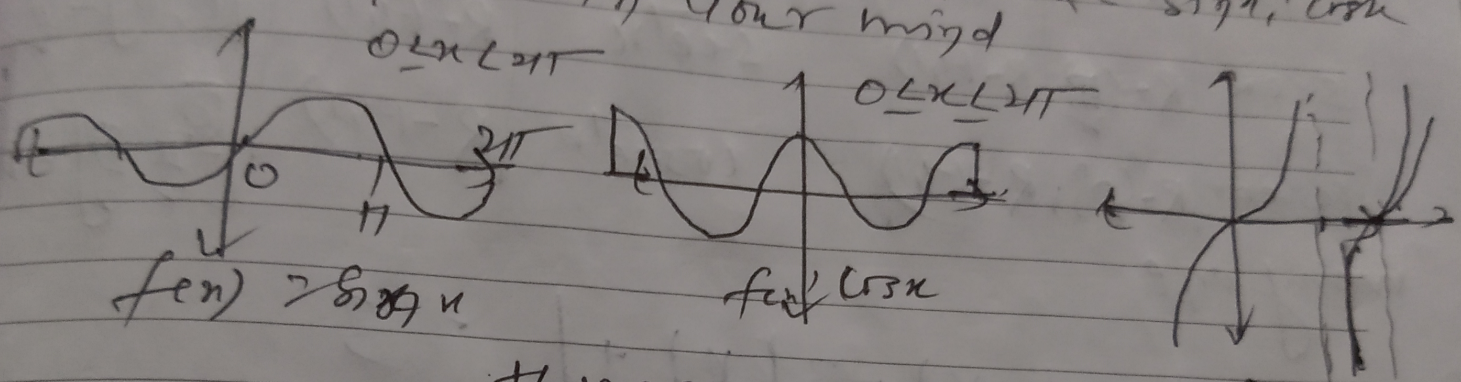
inverse real

$\sin x$	R	$[-1, 1]$	$\sin^{-1}x$	$[-1, 1]$	$[-\pi/2, \pi/2]$
$\cos x$	R	$[-1, 1]$	$\cos^{-1}x$	$[-1, 1]$	$[0, \pi]$
$\tan x$	$R-\{(2n+1)\frac{\pi}{2}\}$	R	$\tan^{-1}x$	R	$(-\frac{\pi}{2}, \frac{\pi}{2})$
$\cot x$	$R-n\pi$	R	$\cot^{-1}x$	R	$(0, \pi)$
$\sec x$	$R-\{(2n+1)\frac{\pi}{2}\}$	$R-(-1,1)$	$\sec^{-1}x$	$R-(-1,1)$	$[0, \pi]$
$\operatorname{cosec} x$	$R-\{0\}$	$R-(-1,1)$	$\operatorname{cosec}^{-1}x$	$R-(-1,1)$	$[-\frac{\pi}{2}, \frac{\pi}{2}]$

any one

CIRCULAR FUNCTION

You have already come across of many type of from from eleventh to twelvth. out of that we have largely discussed inverse function. As you know only one-one onto functions have their inverse. You might have diagram or graph of all circular function like sin x, cos x, tan x etc in your mind



these are many one-function.

Therefore inverse of these function cannot exist unless or untill we restrict their demain

If we restrict the demain of the T-function then one can write its inverse.

Inverse of circular functions are write as

$\sin^{-1}x$, $\cos^{-1}x$, $\tan^{-1}x$, $\cot^{-1}x$, $\sec^{-1}x$ and $\operatorname{cosec}^{-1}x$