

Inverse Trigonometry (Brief)

Function	Inverse
$\sin(x)$	$\arcsin(x)$
$\cos(x)$	$\arccos(x)$
$\tan(x)$	$\arctan(x)$

eg $\sin(\pi/6) = ?$

$$\Rightarrow \sin(\pi/6) = 0.5$$

Says " $\pi/6$ is angle. What is result after pressing "sin" on calculator?
Ans = 0.5"

eg $\arcsin(0.5) = ?$

$$\Rightarrow \arcsin(0.5) = \pi/6$$

Says " 0.5 is the result after pressing sin on calc. What was the angle?"

$$\text{Ans} = \pi/6$$

eg $\arccos(0.5)$

" Pressed cos, got 0.5 as result. What was the angle?"

$$\text{Ans} = \pi/3$$

$$\Rightarrow \arccos(0.5) = \pi/3$$

eg $\arccos(7)$

" Pressed cos, got 7. What was angle?"

$\Rightarrow \arccos(7)$ does not exist.