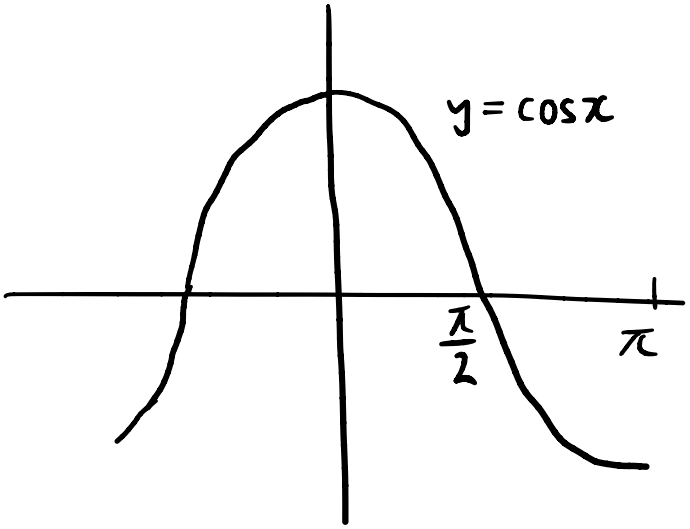
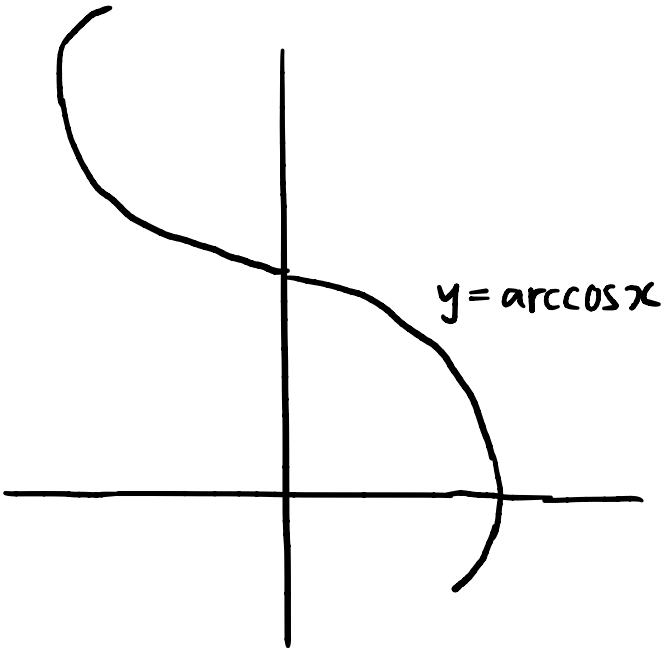
Define the function for inverse cosine.

Find its Derivative.





Define the function for inverse cosine.

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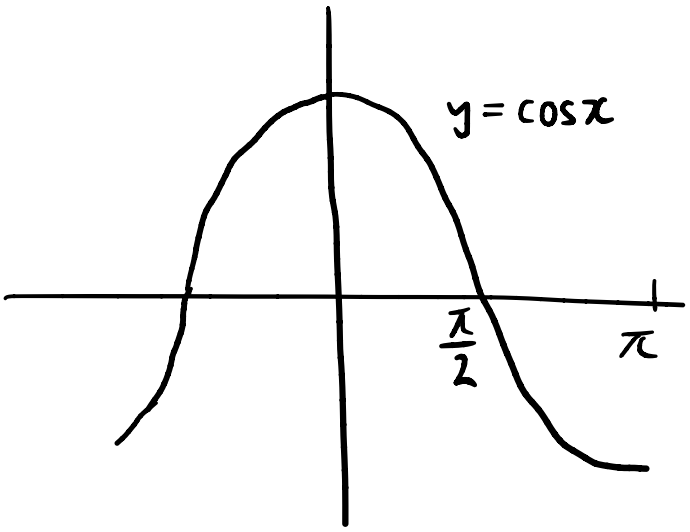

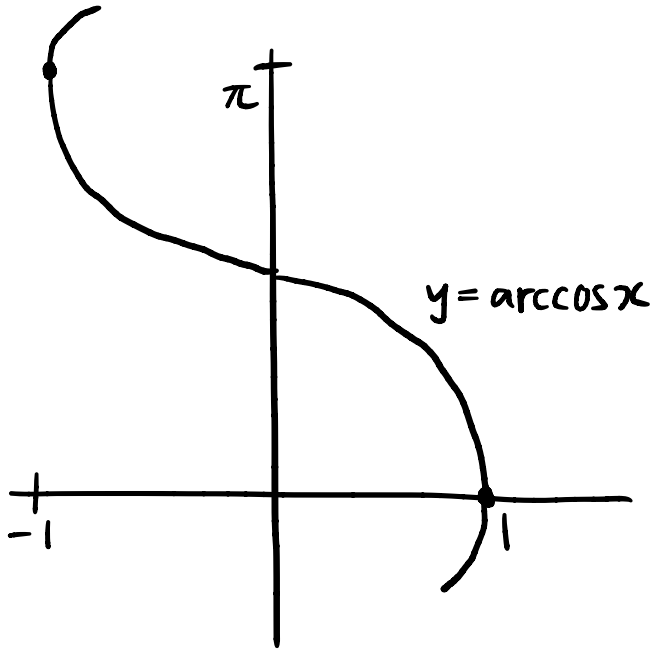

$\arccos x : [-1, 1] \to [\pi, 0]$

$y = \arccos x$

$\cos y = x$

$\Rightarrow \frac{d}{dx} \cos y = \frac{d}{dx} x$

$-\sin y \frac{dy}{dx} = 1$

$\frac{dy}{dx} = -\frac{1}{\sin y}$

$= -\frac{1}{\sqrt{1-x^2}}$