

# Function:- $\arccos(x)$

Birva Shah (Student ID: 40070973)

July 6, 2019

## 1 Problem-1

### 1.1 Definition

The arccosine of  $x$  is defined as the inverse cosine function of  $x$  when  $-1 \leq x \leq 1$ . When the cosine of  $y$  is equal to  $x$ :

$$\cos y = x \quad (1)$$

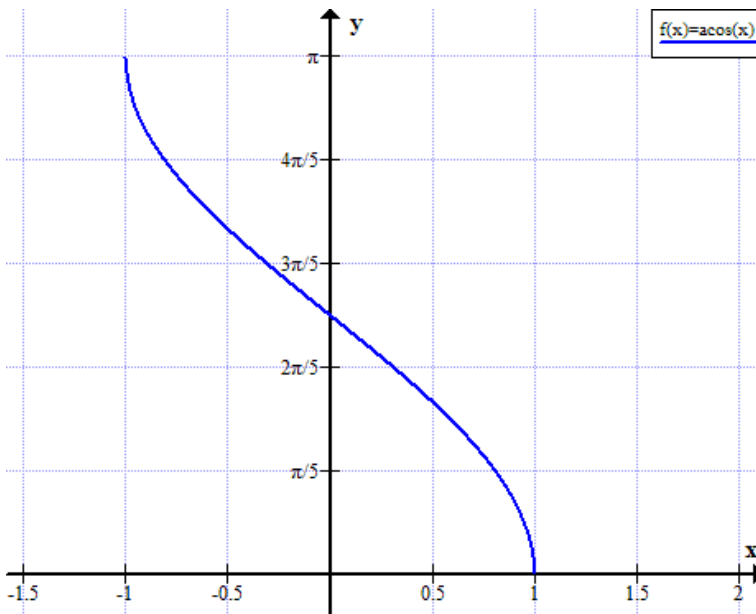
Then the arccosine of  $x$  is equal to the inverse cosine function of  $x$ , which is equal to  $y$ :

$$\arccos(x) = \cos^{-1} x = y \quad (2)$$

### 1.2 Domain and Range

The domain of  $\arccos(x)$  is  $-1 \leq x \leq 1$  and the range of  $\arccos(x)$  is  $0 \leq y \leq \pi$ .

### 1.3 Graph of $\arccos(x)$



## References

- [1] RapidTables,  
<https://www.rapidtables.com/math/trigonometry/arccos.html>
- [2] Mathonweb,  
[http://mathonweb.com/help\\_ebook/html/functions\\_2.htm](http://mathonweb.com/help_ebook/html/functions_2.htm)