

SOEN-6011 Project Poster

F1: $\arccos(x)$

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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 :

$$\cos y = x$$

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

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

Domain and Range

The domain of $\arccos(x)$ is $-1 \leq x \leq 1$ and the range of $\arccos(x)$ is $0 \leq y \leq \pi$ ($0^\circ \leq y \leq 180^\circ$).

Characteristics of $\arccos(x)$

- This function is neither even nor odd.
- It is a decreasing function.
- Graph of $\arccos(x)$

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